REGIONAL CONSULTATION
on
PUBLIC HEALTH
& HUMAN RIGHTS

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REPORT & RECOMMENDATIONS

Organised by

National Human Rights Commission

In collaboration with
Ministry of Health & Family Welfare
Government of India

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South East Asia

Regional Office

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Justice J.S. Verma
Chairperson

(Former Chief Justice of India)

Foreword

The World Health Organization, in its Constitution declares that 'the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being' and it also says that 'health is a state of complete physical, mental and social well being and not merely the absence of disease or infirmity'. The Nobel Peace Laureate, Elie Wiesel has observed that 'one cannot, one must not, approach public health today without looking into the human rights component'. The International Covenant on Economic, Social and Cultural Rights also recognizes 'the enjoyment of the highest attainable standard of health' as the right of every human being. Thus, right to health of the highest attainable standards, is a basic human right with universal recognition. It must, therefore, be treated as a State responsibility with the obligation to ensure its due respect.

In India, the national Constitution recognizes the State obligation in clear terms in Article 47 which provides that the raising of the level of nutrition and the improvement of public health are among the primary duties of the State. This is a Directive Principle of State Policy contained in Part IV of the Constitution which lays down the principles fundamental in the governance of the country and obligates the State to apply them in making laws. Another directive principle in Article 48A imposes the duty to protect and improve the environment and to safeguard the forests and wild life in the country, which too is related to improvement of public health. Both these articles in Part IV of the Constitution have been judicially interpreted to expand the meaning and scope of 'right to life' guaranteed as a fundamental right in Article 21 of the Indian Constitution. Thus, in India the national Constitution elevates the 'right to health of the highest attainable standards' to a guaranteed fundamental right which is enforceable by virtue of the constitutional remedy under Article 32 of the Constitution.

The National Human Rights Commission, therefore, naturally considers it of prime importance that the needed emphasis on improvement of public health is given by all agencies to fulfill the promise held out in the directive principles in keeping with the State obligation in a republican democracy.

In April 2000, the Commission constituted a Core Advisory Group on Health, comprising of experts in the field, with the object of preparing a plan of action for systemic improvements in the health delivery systems in the country. The first Chairperson of the Core Group was the late Prof. V. Ramalingaswamy, who is now succeeded by Prof. N.H. Antia. The Convenor of the Core Group is Prof. K. Srinath Reddy. The Commission is grateful to all the members of the Core Group for their invaluable contribution to the Commission's efforts in this direction.

Pursuant to this programme, and in keeping with its broad objective to give greater practical meaning to the right to health care, the Commission organized two major Consultations on "Maternal Anaemia' in April 2000, and on 'Human Rights and HIV/AIDS' in November 2000. Continuing in this direction, the Commission organized a Regional Consultation on 'Public Health and Human Rights' in April 2001 with a view to bringing the policy makers, public health experts, legal professionals, human rights activists and others together to deliberate on issues like Nutritional Deficiencies, Access to Health Care and Tobacco

Control. The rationale behind the exercise was to evolve practical recommendations for improving the current facilities.

These exercises were performed by the Commission in collaboration with the Ministry of Health and Family Welfare, Department of Women and Child Development (Ministry of Human Resource Development), UNICEF, UNAIDS, WHO, Lawyers Collective and NACO for whose contribution the Commission is grateful.

The linkage between human rights and human development is recognized and so is the significance of public health. The primary targets for the year 2015 of the World Bank also include public health issues such as improvement of reproductive health of women, reduction in infant and maternal mortality rates etc. There is a felt need for genuine partnerships between the government, community, NGOs, medical and legal professions with points of entry at policy making, norm setting, professional associations, service delivery area, research and education. The goal of linking health and human rights is to contribute to advancing human well being beyond what could be achieved through an isolated health or human rights based approach.

It is my fervent hope that the recommendations of the Regional Consultation on Public Health and Human Rights would be given serious consideration and acted upon by the policy makers, planners and others to make 'health for all', a reality.

Dated: 21 June 2002
Place: New Delhi

EXECUTIVE SUMMARY

1. Human rights and public health are powerful and modern approaches with intrinsic connections, which share the common objective of protecting the health and the well being of all individuals. The Calcutta Declaration adopted at the Regional Public Health Conference in 1999 had, in its agenda for action, recommended using a rights approach to health. Upholding human rights and the dignity of all human beings and adoption of an intergenerational approach are important prerequisites for improving public health and ensuring sustainable development.

2. The National Human Rights Commission of India, in collaboration with India's Ministry of Health and the World Health Organization, organised the **Regional Consultation on Public Health and Human Rights** in New Delhi on 10-11 April 2001. The objective was to advocate the importance of adopting a synergistic approach to public health and human rights. The Consultation also sought to identify avenues of action conforming to human rights principles to advance public health objective in three priority areas, viz., access to health care, nutrition and tobacco control.

3. The initiative brought together experts in public health, nutrition, law and human rights, and representatives of NGOs and international organisations. Keynote presentations by experts were followed by intense deliberations in working groups to identify key strategies and initiatives. Two panels of experts discussed the regional perspective and partnerships.

4. Governments have the obligation to respect, protect and fulfil human rights. They have a responsibility for their people's health, which could be fulfilled only through providing adequate health and social measures. Public health officials have dual responsibilities of protecting and promoting public health, and respecting, protecting and fulfilling human rights.

5. For developing countries, realisation of human rights, as they apply to health, is a matter of '**progressive realisation**' of making steady progress towards a goal. The services should be scientifically sound and conform to public health "best practice". The implications of the **right to enjoy the benefits of scientific progress** for health issues have been at the core of recent concerns on access to drugs for the developing world, and vaccine development.

6. The 1978 Alma-Ata Declaration called on nations to ensure essential primary health care availability. The World Health Assembly, in 1998, stressed the will to promote health by addressing its basic determinants and prerequisites. Arbitrary restrictive measures that fail to consider other valid alternatives are abusive of human rights principles and in contradiction with public health 'best practice'. Discrimination in health systems, and unsound human development policies and programmes exacerbate disparities in health. Equal treatment within societies and within health care settings should be the norm.

7. The major determinants of health lie outside the health system. Human rights provide a useful tool for advancing public health goals, and a framework for analysis and research into complex health problems. A systematic human rights analysis using an analytical and action-oriented framework, with indicators reflecting compliance with health promotion and human rights principles, could guide **evidence-based health policy** and programme development.

8. Health and development in various parts of India have progressed unevenly. **Health care** expenditure is the second most common cause of rural indebtedness. The health infrastructure needs to be

reviewed, recast and revitalised to ensure its convergence with existing primary health care priorities. Multi-faceted development efforts can improve the health situation.

9. **Nutrition** is a cornerstone that influences and defines people's health. In the South East Asian (SEA) Region, 40% of under-five children were underweight and out of this 43% stunted, 30% had a low birth- weight, 23% of the population had Iodine Deficiency Disorders. 1.3 million persons had clinical Vitamin A deficiency, and two-thirds of pregnant women had iron-deficiency anaemia. Among the priority areas for action are growth monitoring/promotion, nutrition surveillance, promotion/support of breast-feeding, food security and safety net, and anaemia prevention and control strategy.

10. Governments have a responsibility to create enabling conditions to help individuals make informed choice and to change the vulnerability pattern by enacting legislation and putting in place appropriate enforcement and redressal mechanisms. An **Anti-tobacco Bill** has been introduced in the Indian Parliament in March 2001 that seeks to protect the rights to information. Child health would be protected by the prohibition on sale to minors.

11. The Royal Thai Government's comprehensive anti-tobacco package focuses on provision of health education and public information. The media had helped shape several key health policies. A civil group had petitioned for a National Health Insurance Act. Sri Lanka effected a reduction of child mortality to 0.9% in 1999. Its government is working on appropriate solutions to the new challenges of tobacco control, environmental issues, drug abuse and Sexually Transmitted Diseases. Nepal has 747 health posts besides 197 Public Health Centres (PHCs) and health centres. Female smokers form a third of its hospital out-patients.

12. Application of the **new synergy** of Public Health and Human rights requires additional efforts to create consultative mechanisms, as well as education, training and research in health and human rights. Capacity should be enhanced for inter-disciplinary learning and research on linkages between public health and human rights at national and regional levels. Purposeful public health action calls for capacity building and development of partnerships among legal and public health institutions/professionals, relevant government agencies, health NGOs, other sectors of civil society and representatives of the people. Such networks in SEA countries will serve national and regional public health needs.

13. State **Public Health Regulatory Authorities** and a National Public Health Advisory Body should be established in India to regulate public health practices and monitor the implementation of public health programmes. For dependable delivery of essential health care, the primary, secondary and tertiary systems should be effectively linked. People's empowerment makes all the difference in health outcomes. To promote participation of the people in the development of health care systems, decentralization of authority in health care systems and structural adjustment should be facilitated through Panchayati Raj and other local institutions.

14. Measures suggested for **health personnel** include standardization and quality-assurance in their training, restructuring of their undergraduate education to make it more public health oriented, and a continuing medical education programme with emphasis on public health, and rational use of drugs and diagnostics. To ensure availability of quality **essential drugs,** good manufacturing practices must be enforced and a price control policy evolved with the prices linked to purchasing capacity of the population.

15. For effective implementation of the National **Nutrition Policy,** the National Policies of Action on Nutrition and Child and the Infant Milk Substitutes Act should be monitored. Steps should be taken to minimise loss of procured or stored food-grains.

16. A comprehensive national **Tobacco Policy** should be evolved, and a multi-sectoral national level nodal agency established for tobacco control. All states should take steps for passing resolutions for adopting provisions relating to control of all other tobacco products (other than cigarettes). Information Education Communication (IEC) programmes should disseminate correct information related to the effects of tobacco consumption. Assistance for smoking cessation should be integrated into health care services.

17. Health and human rights experts have a **collective responsibility** to conceptualise and carry forward these agenda for a better and healthier society. The Human Rights Commissions in South East Asian countries are uniquely placed to make a significant difference to the quality of health and health care in the region.

BACKGROUND AND RATIONALE

The goal of extending the benefits of sustainable health over an expanding life span, to all members of the human family, is the cardinal tenet of public health. The Declaration of Human Rights eloquently upholds the right to life as an inalienable entitlement of all human beings. As the mutually nurturing relationship between health and development becomes increasingly clear, protection of health (as an essential requirement for enabling human beings to develop to their full potential) becomes integral to the mandate of human rights. Such a shared vision and shared mission pave the way for a natural alliance between the advocates of public health and the defenders of human rights. Purposeful partnership between the two groups, catalysed by a conjoint consultation, would be very productive for public health.

The National Human Rights Commission (NHRC) of India, under the Chairmanship of Justice J.S. Verma, has accorded a pivotal position to the promotion of public health in its plan of action. It has constituted a Core Group on Public Health to assist the Commission with technical advice on matters related to health. Prof. V. Ramalingaswami (National Professor of Medicine) chairs this group, of which Prof. K. Srinath Reddy (All India Institute of Medical Sciences) is the Convenor. The NHRC has, in Collaboration with other organisations (including UN agencies), organised two national workshops on anemia and HIV-AIDS, to consider issues related to their control in the context of human rights.

In order to extend the discussion to a broad range of issues relating health to human rights, NHRC proposes to convene a consultation, in April 2001, on 'Public Health and Human Rights'. The consultation would involve interaction between health scientists, health activists, jurists, policy makers and representatives from other sections of the civil society. The envisaged end products of the consultation are recommendations for prioritised action in each of the major areas of concern. These recommendations would be then considered by the NHRC for directing the relevant national agencies to initiate the desired action and implement the proposed strategies for advancing public health towards the desired goals.

The NHRC is organizing this consultation, in partnership with the Ministry of Health and Family Welfare (Govt. of India) and World Health Organization (SEARO). By aligning interests and pooling resources, such a partnership will provide synchrony of effort and synergy of effect in promoting public health in India and the South East Asia Region.

For the purpose of this Consultation, National Human Rights Commission, Ministry of Health and Family Welfare and World Health Organization have identified three areas of public health concern: (1) Nutritional Deficiencies, (2) Access to health care (including emergency medical care) and (3) Tobacco Control. Recommendations, generated at the Consultation, would help provide the NHRC with a framework for advocacy and action to advance public health goals in these areas, through relevant administrative, legislative and executive measures.

For these reasons, a partnership between the NHRC (India), Ministry of Health and Family Welfare (Government of India) and WHO (SEARO) would provide a confluence of common interests and cumulatively contribute in the advancement of essential public health goals in India (and other SEAR countries). The consultation, in turn, will provide a platform for establishing partnerships between various stakeholder groups for follow-up action and advocacy.

In this context, one of the follow-up measures proposed, to consolidate and continue the efforts initiated at the consultation, would be to establish partnerships between public health institutions/groups and the

national law institutes in India (located at Bangalore, Bhopal, Hyderabad and Kolkata). Through collaborative arrangements between each national law institute and one or more public health group, focused work would be carried out on selected areas of health evaluated in the context of human rights. For example, one of the law institutes may take up continued work on nutrition and human rights, in partnership with one or more public health groups who have expertise and interest in that area. Others would take up the prime responsibility for providing legal leadership in other specific areas of health. Such collaborative work, linking multiple legal and public health institutions, would provide a filip to the growth of Public Health Law as an academic discipline apart from facilitating informed advocacy on public health as a human rights concern.

OBJECTIVES OF THE CONSULTATION

1. To identify avenues of action which can advance short, medium and long-term objectives of public health in three prioritised areas of concern for further advocacy, by the NHRC, for implementation by the various agencies concerned. The areas to be covered by this Consultation will be (1) Nutritional Deficiencies, (2) Access to health care (including emergency medical care) and (3) Tobacco Control.
2. To establish partnership between public health experts, jurists and community representatives (including health NGOs) to pursue informed advocacy for pubic health action in the context of human rights.
3 To create mechanisms for future collaboration between academic institutions/departments of law and public health experts to periodically produce well researched position papers on major public health issues from the perspective of law and human rights, thereby promoting the growth of Public Health Law both as an academic discipline and as a pathway for public health action.

PARTICIPANTS PROFILE

The Participants would include:

(a) Public Health experts and health scientists.
(b) Legal experts (drawn from national law institutes as well as from the Judiciary and the Bar)
(c) Representatives of health NGOs.
(d) Representatives of the community (drawn from various sections of the civil society, including consumer groups).
(e) Policymakers (drawn from the legislative and executive branches, from the national and provisional levels)
(f) Representatives of NHRC, MOHFW and WHO (SEARO).
(g) Observers from other UN Agencies (UNDP, UNICEF, UNAIDS, FAO, ILO, UNESCO, UNIFEM).

WHO (SEARO) will consider the feasibility of supporting the participation of neighbouring countries who are members of WHO (South East Asian Region).

Main Content Areas

(1) Nutritional Deficiencies,
(2) Access to health care (including emergency medical care) and
(3) Tobacco Control.

In each of these areas, the Consultation would focus on identifying specific activities w0hich are desirable but are currently lacking or deficient. Priority would be accorded to activities where substantial health benefits are expected to accrue in a relatively short time frame, through specific legislative/executive measures. The recommendations would have to be framed in a manner that would enable NHRC to seek

their implementation through clearly indicated actions to be undertaken by the concerned agencies. The consultation does not aim to produce state of the art public health reviews but instead will focus on producing a clearly stated agenda of action which the NHRC can catalyse through its intervention.

Process

The above objectives can only be achieved, if adequate preparatory work is performed to generate a preliminary consensus, among stakeholder groups, on prioritized areas for action in each of the content areas listed above. The main multi-disciplinary consultation would provide an opportunity for critical appraisal of these suggestions and convergence on key recommendations to be forwarded to the NHRC (to accomplish objective 1). The consultation would also provide an opportunity to partnerships, which will advance advocacy and follow-up action (to accomplish objectives 2 and 3).

The preparatory work would be performed by Planning Group comprising of Ms S Jalaja (Joint Secretary, NHRC), Dr. Srinivas Tata (Deputy Secretary, Ministry of Health and Family Welfare) Dr. Tej Walia (World Health Organization) and Prof. K S Reddy (Convenor, NHRC's Core Group on Public Health and Human Rights). The Planning Group would identify key resource persons in each of the main content areas listed above. They would be requested to provide suggestions of specific legislative/executive actions, which will advance public health objectives in that area. A structured formal would be provided by the secretariat so that the nature of the action, its rationale and expected benefits as well as relevance to human rights are succinctly described and the implementing agencies are clearly identified. Each suggestion by the resource persons would be provided utilizing such a proforma, which does not exceed one page.

The Planning Group would screen the suggestions received from various resource persons, in each in the areas, and shortlist them for further discussion in the main consultation. Three working groups for the conference would be established, prior to the conference.

The Consultation would consist of an initial plenary addressing the broad theme, working group discussions to evolve recommendations in their assigned areas and a final plenary to consider the working group reports. There would also be small group meetings to identify the opportunities for partnership and mechanisms for follow-up action.

PROCEEDINGS

INAUGURAL SESSION

The Regional Consultation commenced with the ceremonial lighting of the lamp by **Nitin Singh,** a Class IV student of Kendriya Vidyalaya, Delhi.

Mr. N. Gopalaswamy, Secretary General of the National Human Rights Commission (NHRC) of India welcomed the delegates. The logo of the NHRC features the famous words of an ancient Indian seer, *sarve bhavantu sukhinah*' (let everybody be happy). He said that the subsequent words, '*sarve santu niramayah*' (let everybody be free of disease) were also important and needed to be followed. He mentioned about the efforts taken by the NHRC in this regard by bringing together experts in the areas of health and human rights to review the status and suggest strategic direction and agenda for future action. Two Consultations had been held earlier which had come forth with meaningful measures on 'maternal anaemia' and 'HIV/AIDS'.

Dr. Palitha Abeykoon, Director, Health Technology and Phamaceuticals at the South East Asia Regional Office of the World Health Organization (WHO) conveyed the appreciation of his Regional Director for the initiative taken by the NHRC in organising the series of consultations relating to health and human rights and addressing some of the most pressing health issues. The Human Rights Commissons in South East Asia, he said, were uniquely placed to make a significant difference to the quality of health and health care in the countries of the Region.

The Calcutta Declaration adopted by the Regional Public Health Conference organised by the WHO in Calcutta in November 1999 had identified some key areas in its agenda for action. One of these was to explore ways of using a rights approach to health. In this context, Dr. Abeykoon commended the NHRC for constituting a Core Group on Health issues and assured WHO's wholehearted support for its activities, where possible.

WHO's Constitution had described health as a state of complete physical, mental and social well being and not merely the absence of disease or infirmity. While this had been re-examined on numerous occasions during the past 53 years, it was to the credit of WHO's founding fathers that not a word was changed. Dr. Abeykoon attributed this to the definition subsuming both individual and community aspect of health, and including promotive, preventive, curative and rehabilitative dimensions. It also took into account the determinants of health and their direct consequences.

Elaborating on the special connotation that human rights holds within the international community and in the United Nations (UN) system, Dr. Abeykoon said it referred to an international agreed set of norms and principles which are contained in treaties, declarations, resolutions and recommendations at the international and regional levels. Public health and human rights were both individually powerful and modern approaches to defining and advancing human well being.

Dr. Abeykoon expressed the firm view that upholding human rights and the dignity of all human beings were important prerequisites for improving public health and ensuring sustainable development. All areas of government had responsibility for respecting, protecting and fulfilling human rights. Taking steps in this direction could reduce the risk and impact of ill health, while, violation of human rights could increase the risk of poor health outcomes. He drew attention to the dual responsibilities of public health officials for protecting and promoting public health, and for respecting, protecting and fulfilling rights.

Outlining WHO's approach for integrating human rights in its strategy, Dr. Abeykoon said that the specific objective was to foster stronger interaction between promotion and protection of health, first within the WHO and ultimately within the national health systems. He voiced WHO's firm belief that human rights provided a useful tool for advancing public health goals, and a framework for analysis and research into complex health problems. Dr. Abeykoon said that human rights also served as an instrument to predict and explain the distribution of a range of health outcomes, a yardstick to assess progress made by governments, a platform for advocacy, and a means to generate action at international, regional and national levels.

Dr. Abeykoon expressed the hope that the consultation would explore new grounds in the areas of human rights concerning nutrition, tobacco control and access to health services. He emphasised the need to evaluate public policies and programmes to eliminate the conflicts and dilemmas that arise between individual rights and the public good.

In his inaugural address, **Justice J.S. Verma,** Hon'ble Chairperson of the National Human Rights Commission, India, emphasised the need for timely action. He said that NHRC has always viewed Human Rights in the widest terms to include every dimension of human development. He viewed protection of human dignity as a true indicator of progress in every sphere of human development.

Human development and Human Rights are inextricably linked. Justice Verma said that it was in recognition of this fact that NHRC of India had organised a number of programmes. The basic right of a child is the right to development. Most of the brain growth occurs up to the first 3 years of life. The children have a right to adequate nutrition and health care including adequate immunisation for realising their potential.

Justice Verma found it a matter of concern that 177 million children were malnourished. Malnourished girls grow up to be malnourished women who give birth to malnourished children. Also, 1100 million children die every year from preventable causes, largely for want of access to health care and the effect of nutritional deficiencies. He elaborated on NHRC's approach to play a proactive role and not merely a reactive role to ensure appropriate conditions for children's growth and healthy development and for women's health. It was in this context that NHRC had set up a separate cell on Public Health chaired by Prof Velumuri Ramalingaswamy with Prof K. Srinath Reddy as its Convenor.

Linkages between Public Health, Medicine, Ethics and Human Rights were evolving rapidly. Pointing to the increasing awareness of health worldwide, Justice Verma underscored the need for developing common strategies for collaborative effort involving several partners. In this exercise, the points of entry had to be identified where resources could be put in for effecting positive changes. NHRC had brought together this confluence of experts in this series of consultations for brainstorming and coming forth with meaningful suggestions. He appreciated the Ministry of Health and Family Welfare of the Government of India, for its collaboration in this venture, and also the World Health Organisation, UNICEF and UNAIDS for their positive contributions.

The present Consultation, Justice Verma said, would address the first two of the three important themes (Malnutrition, Health care and Literacy) along with Tobacco control. He found it a matter of grave concern that, by passive smoking, a child under five years suffered the adverse effects of smoking four packs of cigarettes. Elaborating on the ill effects of smoking, Justice Verma quoted an eminent cardio-thoracic surgeon as saying that when he opened the chest during operations, he found the lungs of 30 to 40 year old men from cities discoloured. In sharp contrast, the lungs of senior citizens over 70 years of age from rural areas were clear.

Justice Verma expressed his happiness that some eminent persons from the fields of health and human rights from the neighbouring countries of the South East Asia region were also attending. He hoped that the movement would spread further in other countries also. Justice Verma wished the Consultation all success for deliberating meaningfully and coming forth with practical suggestions for implementation.

Mr. Javed A. Chowdhury, Secretary (Health) to the Government of India in the Ministry of Health and Family Welfare, in his remarks, referred to the saying, 'good health is a way of life.' He felt it more meaningful to say that right to health service or health care is a basic right. It is the duty of the State to ensure this. Mr. Chowdhury elaborated on the efforts of the Union Ministry of Health and Family Welfare to make health care available in the country. The focus, he said, has been on providing preventive and promotive health care, largely through Primary Health Centres. He cited the instance of cost-effective health measures, such as the Information Education Communication (IEC) approach, the use of Oral Rehydration Therapy in diarrhoeas and community-based distribution of anti-malarials and contraceptives.

Mr. Chowdhury said that the NGO's needed to take up more of the curative load at the secondary and tertiary levels of health care. However, there had been changes in health services concurrent with the developments in global economy. Mr. Chowdhury felt that notwithstanding globalisation and liberalisation, there were certain aspects of Public Health and Human Rights, which could not be changed. He pointed to the need for looking at our requirements.

Efforts by the central and state governments were constrained by capacity and the limitation of resources. The annual expenditure on health was a mere Rs. 100 per capita. The equivalent amount of US$2 would not fetch even a strip of analgin in developed countries. Within this budget, the efforts have to be made to ensure availability of health care to the common citizens.

India had been reiterating this concern of developing countries in several international foras. Mr. Chowdhury said that for essential drugs and vaccines, the patents should be in public domain to ensure that these are available at affordable prices. Anti-retroviral drugs for treatment of HIV/AIDs cost Rs. 4.5 lakhs per patient annually. When such an issue affected a large section of the people, any country needed to consider carefully while formulating its response to the international patent law. He queried the stand of international companies of realising the cost of research through high prices on drugs, where the purchasing power itself was limited. He considered it an infringement of Human Rights for a patient to be deprived of these drugs.

On the subject of nutrition, Mr. Chowdhury felt that this was not confined to health sector. There were two dimensions to the problem of malnutrition: the per capita availability and the unequal distribution between different sections. Almost a third of the population was below the poverty line. Micronutrient deficiencies were relatively easier to attack. With the use of iodised salt, the more visible forms of Iodine Deficiency Disorders had relatively declined. There was a need to reach out the measure to scattered pockets of population.

Towards controlling tobacco use, India had introduced a bill in the Parliament. This primarily aimed at discouraging advertising by tobacco companies. Expressing happiness at the wide support that the bill received from elected Members of Parliament, he attributed this to their increasing concern for protecting human rights. Mr. Chowdhury lauded the WHO for coming forward with the initiative for a Framework Convention on Tobacco Control (FCTC). This was the first time that WHO was exercising its constitutional right under its charter, to negotiate a set of globally binding rules concerning tobacco and tobacco-based products. The FCTC should have a broad overarching position covering also the issues of alternative means of livelihood for those in tobacco-related agriculture and trade.

Mr. Chowdhury mentioned that recommendations of consultations like the present one have a positive impact on shaping government's thinking and strategy and on its public health policy and programmes. He wished the Consultation all success.

Ms. Kanika Sachdeva, a class XII student from Blue Bell School, New Delhi, then presented a student's perception of human rights. She was of the view that rights should not remain embedded in books; otherwise the younger generation would inherit an unhealthy environment. Policies of today would affect tomorrow. The lure of short-term gains should not compromise the need to take a long-term perspective and positive action. Only through such an inter-generational approach, said Ms. Kanika, could we sustain health and human development.

Majority of diseases originated from unsafe drinking water. Ms. Kanika drew attention to the need for a complete review of all drinking water projects to ensure their early and successful completion. Similarly, for nutrition, there was need to ensure that required food materials were supplied at all places at affordable prices. In tackling environmental pollution, we should keep in view the interdependence of life on earth.

Ms. Kanika presented a draft Student Charter on Health Of Our Land (SCHOOL) developed by the Student Action Network to the Chief Guest, Justice Verma. She sought the help and cooperation of everyone to create a healthy society.

Proposing a vote of thanks, **Prof. K. Srinath Reddy,** Convenor of the Health Cell of NHRC of India traced the genesis of the Consultation to the collaboration of three institutions- the NHRC, the Union Ministry of Health and Family Welfare, and the WHO. He thanked Justice Verma for his judiciousness of mind and being a beacon of action. Mr. Javed Chowdhury had provided a reality check of means and resources, against which the Consultation must frame its recommendations to ensure success of the proposed measures. Prof Reddy thanked Dr. Palitha Abeykoon for being a major force in moving the Public Health agenda forward to Public action in the region. He also acknowledged the advice and encouragement that Prof Ramalingaswamy extended from his hospital bed.

A **Pre-conference briefing** preceded the Inaugural Session when Prof Reddy detailed the objective of the Consultation and the plan of work of the consultees.

KEYNOTE PRESENTATIONS: I

Chairs: Dr. Shanti Ghosh & Prof. V.S. Rekhi

Prof. V.S. Rekhi drew attention to the various issues requiring attention. He felt that the concept of Human Rights including commitment to the right to health was so broad that it had become evanescent. There was a consensus in the international community that there should be a certain minimum standards. Even the US government under successive presidents had come up with a minimum agenda. Prof Rekhi laid particular stress on the need for ensuring non-discrimination in access to health care; in particular women, children and marginalized groups (Scheduled Castes and Tribes).

There were three successive models of Public Health systems: microbial, behavioural and ecological. Prof. Rekhi catagorised India's approach as a command one. While there had been an enormous increase in Primary Health Centres, these lacked medicines and facilities. The priority was to make these responsive to the needs of the community. A massive decentralisation programme was needed to replace the command model with one that could provide for the public health needs of the common citizen.

PUBLIC HEALTH AND HUMAN RIGHTS-PERSPECTIVES AND ISSUES

Dr. Palitha Abeykoon, Director, Health Technology and Pharmaceuticals, WHO (SEARO) mentioned that the Consultation was very timely and topical, as it addresses some burning health issues. Human rights and public health shared the common objective to promote and to protect the rights and the well being of all individuals. They mutually reinforced and complemented each other. There were several instances where health care policy had burdened human rights, and human rights abuses had affected health care. Recent events, such as the HIV/AIDS pandemic, and women's health issues had focused attention on the intrinsic connections in the health and human rights paradigm. Both represented universal aspirations; both are obligations of governments towards their people, and each supported and required the fulfilment of the other reproductive health issues in the 1980s and, later, HIV/AIDS had highlighted this mutually reinforcing and synergistic relationship.

Dr. Abeykoon traced the **evolution of Human Rights** to World War II when their importance for governmental action and accountability was first widely recognised. The Universal Declaration of Human Rights (UDHR) of 1948 described human rights as the rights of individuals, which inhered in individuals because they were human, they applied to people everywhere in the world, and were principally concerned with the relationship between the individual and the state. He, then gave an overview of the key international covenants, conventions & declarations. The International Covenants on Economic, Social and Cultural Rights (ICESCR) and on Civil and Political Rights (ICCPR) had further elaborated the content of the rights set out in the UDHR. Other international human rights treaties had focused on either specific populations, or on specific issues. While African, American and European regions had regional human rights treaties, the Asian region did not have one.

Elaborating on the **Right to Health,** Dr. Abeykoon said that health as defined in the preamble of the WHO Constitution projected a vision of the ideal state of health as an eternal and universal goal. It illustrated the indivisibility and interdependence of rights as they relate to health. It recognised the enjoyment of the highest attainable standard of health as a fundamental right of every human being. Governments had a responsibility for the health of their people, which could be fulfilled only through the provision of adequate health and social measures. The ICESCR definition differentiated the two attributes of health — physical and mental well-being. Specifically concerned with assigning particular responsibilities to the government health sector, it provided the principal framework for understanding governmental obligations under the right to health. The economic, social and cultural rights described in the human rights documents included the rights to the highest attainable standard of health.

The 1978 **Alma-Ata Declaration** called on nations to ensure the availability of essential primary health care. In 1998, the World Health Assembly reaffirmed the commitment of nations to strive towards these goals in a **Declaration** that stressed the "will to promote health by addressing the basic determinants and prerequisites for health" - and the urgent priority, "to pay the greatest attention to those most in need, burdened by ill health, receiving inadequate services for health or affected by poverty." These very ambitious objectives of health development needed to be considered from the perspective of the role of governments in ensuring equal and equitable access to medical care and health promotion. Dr. Abeykoon also drew attention to the regional public health agenda identified in the **Calcutta Declaration on Public Health of 1999.**

Governments had the **obligation** to respect, protect and fulfil human rights. They should refrain from interfering directly or indirectly with the enjoyment of human rights, take measures to prevent non-state actors from interfering with human rights, and adopt appropriate measures towards the full realisation of human rights.

Discrimination was a breach of a government's human rights obligations; it frequently reinforced social inequalities and denied equal opportunities. It compounded the effects of poverty, and was at the root of disease and of premature death. It also affected lifestyles, such as the patterns of smoking. Discrimination in health systems, and unsound human development policies and programmes exacerbated disparities in health. Equal treatment within societies and within health care settings needed to become the norm.

The right to enjoy the **benefits of scientific progress** and its applications, recognised explicitly in the ICESCR at Article 15, included governmental obligations for the steps necessary to conserve, develop and diffuse science and scientific research, as well as freedom of scientific inquiry. Its implications for health issues were, Dr. Abeykoon said, at the core of recent concerns on access to drugs, especially anti-retroviral therapies and other forms of HIV/AIDS care for the developing world, and vaccine development.

Dr. Abeykoon stressed the need for ensuring **provision of health services** while paying attention to its four **essential features -** availability, accessibility, acceptability and quality of services. Governments had a responsibility to ensure that prevention and care facilities, including infrastructures, skilled human resources, goods and services were in place and appropriately funded, and ensured to all. The intended beneficiaries should feel comfortable in using them and their dignity and privacy respected. The services should be scientifically sound and conform to public health "best practice". The concept of equity was contained within these. Yet, many health services fell far short of these basic requirements.

Reiterating that a commitment to the right to health requires more than just passing a law, Dr. Abeykoon emphasised the importance of financial resources, trained personnel, facilities and a sustainable infrastructure. For developing countries, realisation of human rights as they applied to health was a matter of **'progressive realisation'** of making steady progress towards a goal. They have an obligation to show how and to what extent they were achieving progress towards health goals. Dr. Gro Harlem Brundtland, WHO's Director General had cautioned that even when governments were well intentioned, they might have difficulty fulfilling their health and human rights obligations. She had urged governments, the WHO and other intergovernmental agencies to strive to create the conditions favourable to health, even in situations where the base of public finance threatened to collapse.

The World Medical Association had in its Declaration on the **Rights of the Patient** explored the recent significant changes in the relationship between physicians, their patients and broader society. While a physician should always act according to his/her conscience, and always in the best interests of the patient, equal effort must be made to guarantee patient's autonomy and justice. The patient has a right to medical care of good quality without discrimination, freedom of choice of physician and hospital, self-determination, information, confidentiality, and health education. The Declaration referred to dignity and privacy and to religious assistance. It also covered care of the unconscious patient, the legally incompetent patient and diagnostic or therapeutic procedures against the patient's will.

Nutrition was a cornerstone that influenced and defined people's health. Dr. Abeykoon queried how one could find it acceptable when, it the SEA Region, among under-five children, 40% were underweight and 43% stunted, 30% of the children had a low birth-weight, 23% of the population had Iodine Deficiency Discorders, 1.3 million persons had clinical Vitamin A deficiency, and two-thirds of pregnant women had iron-deficiency anaemia. For addressing these issues, WHO had organised intense discussions across the Region, and identified priority areas for action, such as growth monitoring and promotion, nutrition surveillance, promotion, protection and support of breast-feeding, food security and safety net, strategy for anaemia prevention and control, control of parasitic infections, monitoring of Iodine content in salt, and assessing sub-clinical Vitamin A deficiency.

Tobacco use was a risk factor for some 25 diseases. If current tobacco consumption trends were to continue, about 150 million children alive today would die of tobacco-induced diseases. Dr. Abeykoon felt it a matter of concern that certain high-income countries, which adopted measures discouraging tobacco use in their own countries, encouraged exportation of tobacco to other countries, including developing countries, through export subsidies. This, he said, constituted an egregious violation of the right to health. WHO has initiated the Framework Convention on Tobacco Control to activate those areas of governance that directly impact on public health. It will address issues as diverse as tobacco advertising and promotion, agricultural diversification, product regulation, smuggling, excise taxes, treatment of tobacco dependence and smoke- free areas.

Dr. Abeykoon said that there were situations where it was considered legitimate to **limit Human Rights** in the interest of Public Health. Article 4 of the ICCPR provided for this. The specific power of the state to restrict rights in relation to public health derived from Article 12 (c) of the ICESCR that gave governments the rights to take the steps they deem necessary for the 'prevention, treatment and control of epidemic, endemic, occupational and other diseases' Quarantine or isolation for a serious communicable disease, like Ebola fever, was in example.

Traditional public health measures used coercion, compulsion and restriction for curbing disease spread. Yet, arbitrary restrictive measures that failed to consider other valid alternatives were both abusive of human rights principles and in contradiction with public health "best practice." In this context. Dr. Abeykoon cited some of the restrictive measures traditionally applied to epidemic control that were generally ineffective or even counter-productive in the public health response to the HIV/AIDS pandemic.

Monitoring Health and Human Rights required indicators that reflect compliance with health and human rights principles of the processes of policy and programme development. Through appropriately designed indicators and monitoring systems, the State should be able to show evidence that efforts towards collecting and analysing data did not discriminate against any population group, and that the process of policy development, programme design and resource allocation was inspired by, and respectful of human rights principles.

Dr. Abeykoon highlighted the need to translate the right to health into guidelines and other tools useful for monitoring at the national and international level. The selective use, in the past, of morbidity, mortality and disability indicators was severely constrained by incomplete national data, differences in measurement methods across countries and an inability to relate health outcomes to the performance of health systems. He detailed the new global indicators developed by WHO.

Dr. Abeykoon referred to the Declaration of Alma-Ata (1978), and the Ottawa Charter for Health Promotion (1986), and the increasing realisation that the major determinants of better health lay outside the health system. Dr. Brundtland had drawn attention to the new set of human rights issues arising from **globalisation.** While globalisation along with privatisation could contribute to advancing health through sharing of information, technologies and resources, and providing higher-quality services, it could, also, stimulate the spread of health hazards and diseases, and widen inequalities and inequities. Dr. Abeykoon also drew attention to the role of non-state actors, mainly NGOs and Multi-National Corporations (MNCs) whose accountability was poorly defined and inadequately monitored. He stressed the universal need for governments to ensure that actions taken by the private sector and other actors in civil society complied with human rights principles. The desirable forms and extent of responsibility for multinational actors within the international legal system were also yet to be defined from a health and human rights perspective.

Discussing **WHO's proposed plan,** Dr. Abeykoon listed some of its activities on health and human rights, such as supporting the building of skills and knowledge within the Organization and in countries; doing an internal review of its policies and programmes to verify their conformity with health and human rights principles; and disseminating information and developing human rights-sensitive monitoring and evaluation processes applicable nationally and internationally.

A systematic **human rights analysis** could guide evidence-based health policy and programme development. For optimsing Health and Human Rights in practice, Dr. Abeykoon suggested the questions proposed by Gruskin and Tarantola as a starting point to guide such analysis. An analytical and action-oriented framework that combined the directions of public health and the three sets of governmental obligations could provide a method of analysis and a framework of action for shaping specific public health interventions.

Dr. Abeykoon suggested three levels for applying and monitoring **the new synergy** of Public Health and Human rights: (i) development of adequate monitoring tools reflecting both health and human rights concerns, (ii) application of the health and human rights framework to health practice to ensure that health systems and practice are sufficiently informed by human rights norms and standards, and (iii) creation of a significant research agenda. He said that such an approach would require additional efforts to create consultative mechanisms, as well as education, training and research in health and human rights.

Dr. Abeykoon called upon the health experts to collaborate with experts in human rights in conceptualising these agendas and carrying this work forward. NGOs, and civil society also had a crucial role in this effort. Institutions, such as the NHRC, had a very vital role to play in advancing the urgency to include the human rights dimension in all of health development work. The time, he felt, was ripe for doing this.

In the ensuing **discussion,** the need was emphasised for (i) evaluating the constitutional provisions for health and health policies of the countries of SEA region in the context of human rights requirements, and (ii) adopting the pragmatic approach of progressive realisation.

ACCESS TO HEALTH CARE

Mr. Alok Mukhopadhyay, Chief Executive of the Delhi-based Voluntary Health Association of India drew attention to the uneven progress in health and development in various parts of India. Even within states, which were doing well, there were regions with little change. There was a double burden of disease. Along with infectious diseases like malaria and TB, we had to contend with the new and growing threats of non-infectious chronic diseases like cancer and coronary diseases.

The health infrastructure in several parts was non-functional or unresponsive to these newer health challenges. Over-centralisation, lopsided planning, inadequate/unbalanced outlays, lack of accountability, and dereliction of duty plagued the system. He called for a thorough review of the **National Health Policy,** and a total revamping and restructuring of the health infrastructure.

Given the current ethical standards and the free market technology-driven operational principles, the private sector had not provided quality health care at reasonable cost. This necessitated introduction of **participatory regulatory norms.** Mr. Mukhopadhyay suggested creating an enabling climate for the growth of the voluntary sector, which was reaching out innovative and quality health care in remote areas of the country.

Two and a half decades of following an aggressive target-oriented approach for population control had not produced the desired results. The recently announced Population Policy and the Ministry of Health and Family Welfare's efforts to broad base their activities and building partnerships were important initiatives to revamp the population stabilisation efforts. He underscored the need for concerted and purposeful action for making a dent on the ground reality.

Environmental degradation, alarming increase in pollution levels in cities, drinking water pollution, and indiscriminate use of pesticide posed serious concern. The Rajasthan Canal was carrying malaria to regions where it did not exist earlier.

The programmes launched recently for meeting the challenges of AIDS, Malaria, TB and Immunisation were largely selective, **vertical programmes,** principally supported by international organisations. Mr. Mukhopadhyay stressed the need for reviewing and recasting them to ensure their convergence with existing primary health care priorities in order to revitalise the primary health care infrastructure.

To overcome widespread poverty and underdevelopment, there was a need for redirecting our **poverty alleviation programmes** to a decentralised, imaginative and participatory model. Mr. Mukhopadhyay described some heart-warming experiences of imaginative, people-centred and effective health and development projects. Multi-faceted development efforts had improved the health situation in the southern state of Tamil Nadu. The city of Surat, affected by plague in 1995, had been dramatically spruced up by the efforts of the Municipal Commissioner supported by the people. These held out hope for the future and indicated the direction in which the health and development paradigm had to shift.

Mr. Mukhopadhyay stressed the need for looking beyond the reductionist bio-medical model of health care to a **holistic model** that would put the human being at the centre. This needed a disciplined conversation between allopathic and indigenous systems of health care, with each checking and fertilising the insights of the other.

He deplored the fact that our development efforts had not been rooted in our traditional institutions and community initiatives. Progress was easiest made if we were tuned in with the national genius developed over the centuries, with certain high-level traits. He proposed setting up a central high-level mechanism, such as a **Technology Mission** for revitalising our health sector. This Mission could work by enriching what worked and rejecting what did not. It could suggest the direction for health reform, in view of the government's overall liberalisation of economic policies. It could work out how the health infrastructure could be decentralised, made participatory, appropriate and accountable to the public at large.

The Mission could prove a catalyst. It could help national institutions redefine their roles and play their originally perceived leadership role. It could create an enabling climate for growth of quality, accountable and affordable medical care in the private sector, and growth and development of committed and dedicated voluntary sector for providing health services in remote and difficult areas. To provide a necessary cutting edge, such a mechanism should be under the NHRC or the Ministry of Human Resource Development. It can utilise the voluntary services of distinguished people from the field of public health.

Expressing his apprehension that continuous neglect of the health of the nation may cost the nation dearly, Mr. Mukhopadhyay urged the government to take immediate assertive action to arrest the current situation. He quoted Sri Aurobindo, "Work as if the ideal has to be fulfilled swiftly and in this lifetime".

During discussions, **Dr. Shanti Ghosh** shared her experiences of working with children in a leading hospital in Delhi. She appreciated the progress in the health field made by Tamil Nadu in recent years. She wanted access to quality health services ensured for all citizens.

KEYNOTE PRESENTATIONS: II

Chairs : Justice K.N. Kurup & Prof. N. Kochupillai

Justice Kurup said the cost of modern tertiary care was often beyond reach of a common citizen. One ampoule of streptokinase costed Rs. 3.500. There was a need for appropriate legislation for ensuring medical coverage for all persons through suitable mechanisms, like health insurance.

TOBACCO CONTROL

Mr. Arindom Mookerjee, WHO National Consultant on the Economics and Policy of Tobacco Cessation, said that the validity and sanction of any social legislation had to be rooted in the gamut of human rights it sought to protect or promote. An **anti-tobacco bill** entitled, 'the Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Bill, 2001', had been introduced in Rajya Sabha on 7 March 2001 and has been referred to the Standing Committee on 12 March 2001. The Bill, when enacted, would be effective all over India as far as the provisions regarding cigarettes were concerned. For other tobacco products, it would apply only to the Union Territories, and the States of Punjab, West Bengal, Uttar Pradesh and Goa. Other states could adopt the law pertaining to other tobacco products merely by passing a resolution in their legislatures.

Mr. Mookerjee reviewed the relationship between the triad of health, human rights and social legislation. There was a need to distinguish medicinal aspects of private health care from the larger domain of public health, viz., ensuring conditions in which people can be healthy. While smokers might derive a private benefit from smoking, by so doing they were adversely affecting the health of majority of non-smokers.

Enabling conditions needed to be created to help individuals make **informed choice,** isolate the changing vulnerability patterns and develop effective response mechanisms. The government was responsible for creating these conditions and changing the vulnerability pattern by enunciating the law and putting in place appropriate enforcement and redressal mechanisms.

The patterns of smoking in the world suggested that the habit was percolating to those with limited access to correct information and education and those facing greater vulnerability to health risks on account of their socio-economic standing. Children smokers were special target groups of tobacco companies. Tobacco was a 'bad' or a 'demerit' good**.** While being 'exclusive' in use, it was certainly 'non-exclusive' in effect. The tobacco user might be using it in his personal capacity, but he could not exclude others from the harmful exposure to tobacco smoke; others bore the harmful effects despite zero risk taking. While passive smoking resulted in increased risks to adults of fatal and disabling conditions, babies born to smoking mothers were more likely to have lower birth weights, and face greater risk of respiratory disease and sudden infant death syndrome.

In India estimates showed that 8 lakh deaths could be attributed to tobacco use. Half the long-term smokers would eventually be killed by the habit; of them half would die in the productive middle age. As of 1999, ICMR had estimated the prevalence of tobacco related cancer cases as 1,63,500; coronary artery disease due to tobacco use as 44.5 lakhs; and obstructive lung disease due to tobacco use as 39.2 lakhs. The total economic cost of treating tobacco related diseases came to almost Rs. 13,500 cores per year (at 1990 levels). At today's rates, this would be in excess of Rs. 25,000 crores.

The Bill sought to protect the **right to information.** Informed choice would aid consumer sovereignty and rational decision-making. The Bill attempted to bridge the right to information by displaying nicotine

and tar content and other health warnings. Child health would be protected by the prohibition on sale to minors. A non-smoker's right to clean air would be ensured by prohibition of smoking in public places.

Towards effective enforcing and monitoring of the law, the Bill empowered authorities to fine offenders and confiscate. The mere fact that the law existed would assure a measure of protection for non-smokers, who could stand up for their rights. The Bill sought to protect individual freedom, not to curb them, its strategy being clearly to reduce the demand.

To counter the work of the tobacco lobby and the multi-nationals, Mr. Mookerjee called for the formation of a **broad alliance** of members of the civil society, public health activists, academia and sympathetic sections of the industry to advocate tobacco control, to educate and to counter-attack when needed. The NHRC would have the role of a watchdog to ensure compliance with the law once it came into being.

NUTRITIONAL DEFICIENCIES

Prof. H.P.S. Sachdev, In-charge of the Pediatric Clinical Epidemiology Division at the Maulana Azad Medical college, Delhi started his presentation with a review of current status and recent trends. The most outstanding achievement had been the virtual banishment of acute large-scale famines. Severe **Protein Energy Malnutrition** (PEM) had declined. Classical kwashiorkor had virtually disappeared in most regions. The prevalence of marasmus had declined from 1.3% in 1975-79 to 0.4% in 1994. Over the same period, kwashiorkor had dropped in prevalence from 0.4% to 0.2%; it was now seen only in the state of Madhya Pradesh (1.4%). Marasmus ranged in prevalence from 0.4% in Tamil Nadu and Andhra Pradesh to 1.4% in Madhya Pradesh and Orissa.

The regional prevalence of **Low Birth Weight** (LBW) babies was 21% in South East Asia, which accounted for half of the global LBWs. In India the National Neonatology Forum (NNF) had, from its 1995 survey of 37,082 births from 15 participating centres, reported LBW prevalence as 32.8%. This could possibly be an over-estimate. The incidence of premature births ranged from 7.1% to 22.3%; the latest NNF data estimated it at 12.8% nationally. Pre-term births account for a third of the LBW infants. The Child Survival and Safe Motherhood programme estimated the LBW prevalence to be much lower at 18.4%. The second National Family Health Survey (NFHS-2) of 1999 placed this at 22.7%, while some hospital surveys reported figures ranging from 8 to 16%. Variations in LBW prevalence could be due to inter-regional differences, socio-economic factors and urban-rural differentials.

Trends in LBW prevalence held hope of possible betterment even with the prevailing development scenario. Intrauterine growth and gestation were significant for enhancing birth weight. An all round integrated approach would yield dividends rather than a narrow (food supplementation) strategy.

The **National Nutrition Monitoring Bureau** (NNMB) data indicated a distinct improvement in the prevalence of underweight and stunting. Severe malnutrition had declined from 15% in 1975-79 to 6.2% in 1996-97, with a concomitant increase in normal children from 5.9% to 8.9%. Stunting declined form 78.6% to 57.85%, with a three-fold increase in the percentage of better-nourished children. There was no change in the percentage of wasting from 18.1% to 18.5%. The NFHS-2 found that, among children under three years, 47% were underweight, 46% stunted and 16% had wasting. The trends showed that children are not getting fatter, but taller with more weight.

The trends among women showed an increase in height and weight with successive generations. Trends in **Body Mass Index** (BMI) showed a decline in the extent of **Chronic Energy Deficiency** (CED) among adults (BMI less than 18.5) from 56% in 1975-79 to 46% in 1996-97; among women, CED fell from 51.8% to 36%. The fat fold thickness of women was increasing showing that they were becoming obese.

The NFHS-2 survey revealed that **anaemia** (Haemoglobin <11 g/dl) affected 70.8% of children up to the age of three in urban areas and 75.3% of the same group in rural areas. However, severe forms of iron deficiency anaemia (Haemoglobin <7 g/dl) were declining to 5%. Among women, anaemia affected 50.4% with 1.9% being severely affected. Among pregnant women, the corresponding incidences were 49.7% and 2.5%.

The severe forms of **Iodine Deficiency Disorders** (IDD) were declining. Of the 275 districts surveyed in 25 states and 4 Union Territories, 235 were still endemic for IDD. An estimated 167 million people were at risk of IDD of whom 54 million had goitre, 2.2 million were cretins and 6.6 million had mild neurological disorders. The prevalence of goitre among school age children ranged from 0.8 to 20.5%. The use of iodised salt varied from 68 to 100%. NFHS-2 showed that iodised salt was not being consumed in 28% of the households.

Vitamin A deficiency had shown marked reduction. The prevalence of Bitot's spots fell from 4.2% in 1969 to 0.2% in 1996. These were absent among infants, even in slums. In a few isolated areas like in Bihar and Uttar Pradesh, the prevalence remained high.

Prof. Sachdeva interpreted the various trends in nutrition to show a positive but modest improvement. There was an urgent need to intensify efforts to improve the nutritional profile of children. Except for iodine, there was no specific functional nutritional intervention programmes. He supported the case for an all round intervention rather than the narrow supplemental approach.

Nutrition affected throughout one's life cycle. There was a need to improve the **efficiency of the food system.** Prof. Sachdeva was against the general belief that low anthropometry in malnutrition meant low food intake levels. He cited the instance of food supplementation during pregnancy improving birth weight by a mere 25 to 30 grams, and in under-five children by only 0.2 SD.

In food supplementation programmes, it was found that 75% did not consume the food meant for them and 3% actually consumed them. He contrasted long-term development measures with emergency relief, functional (clinical) measurements with biochemical (sub-clinical), and role of farms with that of pharmacies. He called for a closer look at maldistribution, sustainability and cost-effectiveness of each approach. There was need to reduce teenage pregnancies (to improve LBWs) and improve infant feeding practices.

During discussion, it was opined that in case of conflict of interests, the cause of Public Health should be examined more closely.

WORKING GROUP DISCUSSIONS

The delegates then divided themselves into three groups based on their areas of interest. Each group had a chairperson, a co-chairperson and a rapporteur as mentioned below:

	Group	Chairs	Rapporteur
I	Access to health care	Prof. Jacob John/ Prof. Ranbir Singh	Dr. Lalit Dandona
II	Nutritional deficiencies	Prof. S. Seshadri/ Prof. N. Kochupillai	Dr. Farukh Ahmed
III	Tobacco control	Dr. Mira Aghi/ Dr. Mohan Gopal	Mr. Bejon Misra

Resource materials identified earlier by the Organising Committee were made available to the groups. Brainstorming approach was used to identify the various issues involved. Each group then reviewed the issues before it and came up with concrete plans for action. Some groups even categorised the issues, and formed sub-groups to work on specific issues and come back to the group with their views. The groups continued their work in the evening and again on the next morning to finalise their recommendations.

PANEL DISCUSSION-I

Public Health & Human Rights - Regional Perspectives

MODERATOR: Dr. Sudarshan Agarwal

Referring to a UNICEF report, **Dr. Sudarshan Agarwal** found it deplorable that some 40,000 children were dying every day from Vaccine Preventable Diseases. He also found the status of health care services in India a matter for concern. Peons in some Municipal Hospitals were dispensing medicines. He wanted the present meagre allocations for health to be enhanced. There was a need, he said, for reducing the incidence of Low Birth Weight babies and for ensuring adequate health care services to enable people to live a life of human dignity.

Dr. Choochai Supawongre from the Ministry of Public Health of the Royal Thai Government highlighted two issues, which had been a matter of concern for the Thai people in recent times — health care and tobacco control. Government policy was needed to ensure the protection of people's rights. The 1997 Constitution foresaw full democratic participation by individual, community and civic, society. The Public Organisation Act (1999) granted government unit's autonomy, in close collaboration with civic society. Several public hospitals were being given autonomous status. Remaining public hospitals were setting up boards consisting of local lay members.

The Public Information Act (1998) further promoted transparency and social accountability through guaranteed citizen rights to government information. The media had been helping shape several key health policies. A strong civil group had submitted a petition with 50,000 signatures for a National Health Insurance Act. Success of this initiative would, Dr. Supawongre said, show the right direction and impetus for a healthier nation.

Smoking used to be common in Thai society. Ongoing efforts by the Health Ministry aimed at achieving a smoke-free Thai society had been successful in reducing this habit. A comprehensive anti-tobacco package

was developed, which focused on provision of health education and public information. This was supported by the promulgation of two important laws: the Tobacco Products Control Act (1992) and the Non-smoker Health Protection Act (1992), and increasing the tax on cigarettes. Collaborative efforts were made with NGOs like the Non-Smoking Foundation and the social value of not smoking in public inculcated. Dr. Supawongre cited surveys to say that the prevalence of smoking had dropped to 20% in 1999 from 30% in 1976. In terms of numbers, this meant a decline of 4.8 million.

Mr. I.W.A. De Vas Gunawardena, Assistant Director (Investigation) from the Human Rights Commission (HRC) of Sri Lanka mentioned that initially the HRC in his country had not considered health as one of its subjects. However, following a number of cases of medical negligence, which came up before the HRC as well as the Supreme Court, the Chairman, had suggested an amendment to include Public Health as one of the Commission's subjects.

Referring to the various provisions in the Universal Declaration of Human Rights, Mr. Gunawardena stressed the need for State to promote the health of its citizens, particularly mothers and children. Sri Lanka had effected a reduction in its child mortality rate to 0.9% in 1999. Practitioners of allopathic, ayurvedic and unani systems were providing free health care services in state-run health institutions. Health units were headed by the Medical Officer of Health and assisted by Public Health Nurses. The private sector provided the facility for those who could pay.

Only 5-6% of the revenue was spent on nutrition. Vitamin A and minerals were found lacking in food particularly in rural areas. A survey by the FAO/WHO found a deficiency of iron, calcium, riboflavin and Vitamin A. Appropriate steps were being taken for educating the people for overcoming these deficiencies.

Tobacco control, environmental issues, drug abuse and Sexually Transmitted Diseases were new challenges for which the Government of Sri Lanka was working out appropriate solutions.

Justice Gauri Shankar Lal Das of NHRC of Nepal said that the NHRC was created by an act of the Nepalese Parliament on a private member's bill. It took three years for the Commission to be constituted and start its functioning in May 2000. The Commission was also a member of the Asia-Pacific Forum of HRCs. Nepal was a party to 60 human rights conventions.

Detailing the health situation in Nepal, Justice Das said that Nepal had 5 regions, 14 zones and 75 districts with 3,995 village development committees. There were 747 health posts with sub-health posts manned by a female community health volunteer. There were 197 PHCs and health centres. The child mortality rate was 108 per 1,000, the maternal mortality rate 47.5 per 1,000 births, and crude birth and death rates 35.4 and 11.5 per 1,000 population respectively. Half of the pre-school children were under-weight. Of the children of 6 to 36 months of age, 63% were chronically malnourished, 49% were underweight, and 6% had severe malnutrition. The goitre rate in children and adults was 47%. Female smokers were in large numbers and accounted for a third of the patients coming to the Hospital OPDs. Chronic bronchitis was a major problem in hilly areas. Nepal had no public health legislation, except for a smoking restriction and control act.

Mr. Amit Sengupta of the People's Science Movement mentioned that his group encompassed 18 national level organizations covering one-third of the districts in the country and 450 Community Development Blocks. Through village enquiry, responses on people's perceptions about health were elicited. A major communication exercise was, then, undertaken through street theatres. Five health trains carried people for the culminating event of the Jana Swasthya Sabha (People's Health Assembly) at Kolkata on 30 November and 1 December 2000.

The five issues focused on included globalisation and health, nutrition, inter-sectoral linkage of water and sanitation, regulation of private sector and population control programmes. There was need to promote community involvement. The community paying for its health was not involved in planning or deciding on the health care services. It was no wonder that these services were not responsive to the community needs. India had large-scale commercialisation with the largest unregulated private health sector.

Ms. Sujatha Rao, Joint Secretary in the Ministry of Health and Family Welfare, Government of India gave an overview of the health system in India. In UK and Canada, health was a socially held ideal and it was government's responsibility to provide a general health cover for everyone. Provision of free universal care, irrespective of the capacity to pay, required adequate funding. UK and Canada had allocated 30 to 40% of their budgets on health. India allocated only 5 to 6%, which formed less than 1% of its GDP, while the average amount needed was 5%.

Ms. Rao detailed several features of health care in India: Doctor-led services, use of modern technology, forces pushing for declaring it an industry, and most privatized sector. She pointed to the apparent lack of accountability when 6 to 10 per cent patients in an ICU died. She mentioned the role of politicians, administration, judiciary and press in ensuring good governance, giving a greater focus to public health and building on the synergy between health and human rights.

Summing up the discussions, **Dr. Sudarshan Agarwal** referred to a controlled study conducted by Prof. William Hsiao of the Harvard School of Public Health in China to test (i) user fees vs. insurance and (ii) privatization vs. decentralization. Results in four blocks showed a greater demand for institutional/tertiary care than for Public Health oriented approach, while the outcomes did not significantly differ. He posed the query whether India could afford now or ten years hence to find the budget to protect every citizen with a social insurance package.

PANEL DISCUSSION-II

Partnerships for Public Health & Human Rights

MODERATOR: Prof. K. Srinath Reddy

Prof. K. Srinath Reddy introduced the panellists. He invited their views on specific issues by posing questions to them.

Q. In your view, what would form the component of an essential care package for a common citizen?

Prof. Ranbir Singh: The 1978 **Declaration of Alma-Ata** called on nations to ensure the availability of the essentials of primary health care, including education concerning health problems and the methods for preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against major infectious diseases; prevention and control of locally endemic diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs. These would form the essential services whose provision should be ensured by the government in its obligations to the right to health.

Q. How can Human Rights issues be strengthened in Public Health training institutes?

Dr. K.R. Thankappan, Achyutha Menon Centre for Health Sciences**:** Our institute has a multi-disciplinary faculty and conducts Master's programme in Public Health. It is possible to collaborate with a National Law School University and with other institutes for data gathering and research. Such a twinning arrangement would facilitate planning and organising short courses on Health and Human Rights from 2002.

Q. How can we ensure a greater degree of interdisciplinary collaboration?

Prof. B.P. Panda, National University of Juridical Sciences, Kolkata**:** We are exploring the linkages of law with different disciplines like medicine, engineering, etc. A study can be done on communication between doctors and other functionaries in the health system. We are also planning to collaborate with the All India Institute of Hygiene and Public Health.

Q. How can a nutrition institute collaborate with a law institute for promoting human rights?

Dr. Vijayaraghavan, Deputy Director, National Institute of Nutrition, Hyderabad**:** The National Institute of Nutrition (NIN) collects information, conducts operational research on controlling malnutrition, sensitizes people in different disciplines on nutrition, and disseminates information. In terms of nutrition and the right to achieving their potential, the children and mothers are worst affected.

Q. How do we ensure that Human Rights issues are considered and people are kept informed?

It is here that the law institutions could help. NIN can organise orientation programmes to sensitise lawmakers and the general public interactive programmes can be done with the law faculty.

Q. How can NGOs articulate Public Health concerns?

Dr. Mohan Isaac, Community Health Cell, Bangalore**:** The recent Census has shown wide disparity in the health indicators. The various laws are being enforced poorly and differently. There are complex factors in implementation of health programmes. Health care expenditure is the second most common cause of rural indebtedness.

The National Mental Health Act of 1987 contained directions for central and state health authorities for protecting people with mental disorders. It took six years for the rules to be formulated in 1993. In 2000, when the National Mental Health Authority was constituted, it was found that state mental health authorities were not functional in many places. The enforcement of the Act is very poor.

Q. What is the role of the nursing professionals in Public Health discipline?

Ms. Manju Vats, Principal, School of Nursing, AIIMS, New Delhi**:** Public Health Nurses (PHNs) can help in promotion of human rights through partnerships for caring for people, especially the underprivileged and those in remote areas, and empowering the masses. However, the concept of Public Health Nurse is missing in India. There is an over-reliance on medical professionals, when much of their work could be carried out competently by trained PHNs.

Q. How can the public health care system in rural areas be improved?

Shri M.A.A. Khan, Uttar Pradesh**:** There is a lack of system that provides awareness in rural areas. NGOs and Panchayats can provide this with assistance from the government. The subcentres cannot provide all health care. The system of private nursing homes or doctors is not viable in rural areas. There is a need for exploring alternate systems.

Q. How can NHRC help strengthen the access to health care?

Dr. Srinivas Tata, Deputy Secretary (Public Health), Ministry of Health and Family Welfare, Government of India**:** The process of partnership has already started between NHRC and the Ministry of Health and Family Welfare. Clarity of thought has been provided. For the first time, effort has been made to identify rights, which a citizen can demand as a 'matter of right'. We need to look at what the government is already implementing and what it plans to do.

Enforcement of rights can be through various disease control programmes and legislation. Our partners from law schools can help by identifying which areas are amenable for legislation. They can also join us in a thorough review of the existing Public Health laws. NGOs have the potential to play a strong role in monitoring implementation.

In a developing country like India with resource constraints, there is a need to apply the principle of progressive realization. A time frame can be set up and the progress monitored against this.

Prof. K. Srinath Reddy: The connection between the key stakeholders may be marked by indifference or even be adversarial. If this happens, we need to change this to one of collaboration and partnerships for agenda for Public Health. This must be a positive approach. Institute of Public Health training and NGOs can look at community needs and prospects of importance in Human Rights perspective. An institution like NIN looking after a specific subject, say nutrition, can work with an NGO partner in nutrition, and a National Law School to provide continuing resources to NHRC, the government and the WHO. Over a period of time, a critical mass will be generated.

PRESENTATION OF REPORTS BY WORKING GROUPS

Chair: Mr. Prasada Rao, Additional Secretary,
Ministry of Health & Family Welfare, Govt. of India

Co-chair: Prof. N.R. Madhava Menon, Vice-Chancellor National University of Juridical Science, Kolkata

Mr. Prasada Rao invited the rapporteurs of the various groups to present their reports. Each presentation was followed by a brief discussion.

Group I – Access to Health care

Dr. Lalit Dandona presented the group report. Dr. Shanti Ghosh suggested that NHRC could recommend an increase in resources for health to ensure that health gets adequate funding. Dr. Tata wanted a more focused recommendation covering restructuring of the pyramidal system. Dr. L.M. Nath said that the health system had become reactive and not proactive. For effective planning and implementation of public health programmes, he wanted that Public Health skills be made an essential qualification for District Health Officers and above. Mr. Bejon Misra suggested that the National Pharmaceutical Pricing Authority could be included as the specific implementing agency under the recommendation for regulating drug prices. Mr. Prasada Rao said that, while Rs. 54,000 crores was spent on development expenditure, there appeared to be a problem in the delivery system, which needed rectification.

Group II – Nutritional deficiency

Dr. Farukh Ahmed presented the report. Mr. Prasada Rao commented that there was a need for convergence of all 3 sectors: Health, Nutrition and Population Control for promoting the health and nutritional status of women and children in India.

Group III – Tobacco control

Dr. Bejon Misra presented the report. Dr. Prakash Gupta and Dr. (Ms) Vaidya suggested among others, the identification of alternate employment for tobacco farmers, and a ban on import and export of tobacco.

Prof. N.R. Madhava Menon summing up the general recommendations said that there was a need for a closer look at the three components of the Health Care Delivery System – (i) Standards, norms and principles, (ii) Institutions, procedures and structure, and (iii) Human element. We could, then, identify how the delivery could be streamlined and made easily accessible, assign roles to the different players, strengthen the training/education of Public Health personnel, and carry out sensitization of judiciary.

Prof. K. Srinath Reddy said the Consultation had answered the cry of anguish from Public Health personnel with words of wisdom from the judiciary. There was a need for decentralization and structural adjustment in health services. NHRC can provide a platform for partnerships; it can play an advisory role by enunciating the principles on which Human Rights had been violated. It also had a role as a conscience keeper and in mentoring. He discussed capacity building in various domains, such as public health, legal, health NGOs, health infrastructure and government. There were also needs of transdisciplinary research, advocacy and monitoring. International agencies like WHO could be approached for resources to sustain the partnerships and for organising training/research.

Prof. Madhava Menon, in his closing remarks, stressed the need for capacity building. He said the University of Juridical Sciences was looking at the interface between Public Health and Law for material to

use for improving health delivery and justice delivery in future. The National Law School Universities at Bangalore, Hyderabad and Bhopal could also participate in similar exercises.

VALEDICTORY SESSION

Presenting a summation of the recommendations, Prof. K. Srinath Reddy mentioned that a common thread ran through the group reports – that Public Health was in a state of neglect. This was a violation of Human Rights. The report had identified specific areas of Human Rights linkages to health and denial of these links. Various declarations had enunciated the rights of the unborn child, the right of redressal and the right to information. These, and their connection to Public Health, had been established.

Action was required in a variety of ways – legislative, executive and educational. There was a need to shift the health care delivery system from a prescriptive model to a participatory model with community empowerment and coalition of professionals from a variety of disciplines.

Tobacco control legislation had to expand its ambit to cover other tobacco products by addressing states to legislate required resolutions in support of the Act. Stopping of subsidiaries and relocation of displaced labour had to be carefully considered.

An incremental approach was needed for expanding services and staff and progressively realizing the ideals in a realistic time frame. Purposeful public health action called for capacity building and development of partnerships among legal and public health professionals, other sectors of civil society and representatives of the people.

The stakeholders should have a purposeful coalition. Inter-disciplinary approaches would be conducive for training, action, advocacy and research. Networks of Public Health Institutes, National Law Schools and Health NGOs could collaborate as a sustainable resource. Organisations like WHO could help advance the agenda by providing support for capacity building. Better health laws and their more judicious implementation were also called for.

Dr. Robert Kim-Farley, WHO Programme Coordinator and Representative to India, in his remarks, hoped that WHO's collaboration in this important Regional Consultation would be a forerunner for many more such interactive efforts on the very important subject of Public Health and Human Rights. He considered health a pre-requisite for the enjoyment of all other Human Rights. Establishing accountability within the health system and a multi-sectoral approach would help in tackling this multi-dimensional issue. He urged for a move from the realm of words to the realm of action for creating a society free from needless suffering.

Mr. Javed A. Chowdhury, Secretary (Health) to the Government of India in the Ministry of Health and Family Welfare, felt that access to public health was better in some parts of India, especially in the southern states. He cautioned that in social sector, the results might not be as dramatic as in industry. There was concern about denial of social empowerment and skewed power structure. The Central Health Service, with 5,000 doctors, had only 76 doctors in its Public Health cadre. Public health issues should get more importance. Empowerment and decentralization would facilitate this.

Mr. Chowdhury dispelled the impression that government took comments on the health system as adversarial. He said any constructive comment or criticism from any agency, in particular the NHRC, was always taken seriously and in a positive way to explore ways of improving the system to provide better health care. He wanted mass media to disseminate information on important public health policies and programmes of the government rather than picking on a small issue of the micro-level and sensationalising it.

Justice Mr. J.S. Verma, Hon'ble Chairperson of India's NHRC, expressed his satisfaction with the Consultation terming it 'a long stride in the right direction.' In his **valedictory address,** he called for each one of us to educate ourselves better. He found the attitude of the Ministry of Health and Family Welfare and its secretary to be reassuring. As Prof. Amartya Sen, the Nobel Laureate, had remarked, "one cannot approach Public Health without keeping human rights in view." People active in Public Health and Human Rights had a collective responsibility to move the agenda forward for a better and healthier society.

There was a pressing need for decentralization for which the right to information was necessary. Discrimination would result from improper implementation of programmes. Southern states could advance in health field because of the education of girl child. Justice Verma said that past experience had shown that better health record was not always relatable to the stage of economic development. It was people's empowerment that made all the difference in health outcomes. Every administrative rule or action should have transparency and openness. Such an approach would take care of everything that we want to correct.

With proper planning, we could avoid starvation deaths or minimize the ill effects of a supercyclone. Thailand, when confronted with the HIV/AIDS epidemic, had developed and implemented a well-planned strategy with political commitment at the highest level, and was successfully overcoming this challenge.

Elaborating the role that he visualised for NHRC, Justice Verma said that NHRC could work as a catalyst to promote humane governance. The recommendations of the Consultation would be reviewed and put in the form that NHRC could make.These would then be addressed to the concerned Ministries, organisations and agencies for consideration and appropriate action. A feedback on the outcome would be asked for. He welcomed useful suggestions from the participants and invited them to write in with their views.

Justice Verma, then, distributed mementos to the delegates from Thailand, Sri Lanka and Nepal.

On behalf of the delegates, **Mr. Srivastava** thanked the organizers for the excellent arrangements and the stimulating discussions. He expressed his happiness at encountering the 'tender face' of judiciary and law.

Mr. N. Gopalaswamy, NHRC's Secretary General, acknowledged the support of the Ministry of Health and Family Welfare and the WHO in facilitating the organisation of the Consultation in a very short time. He was grateful to the foreign delegates for participating and sharing their views on regional perspective. He thanked the experts and representatives from various organisations including Maharashtra Human Rights Commission, government departments, judiciary, public health training institutions, National Law Schools and NGOs. He commended Prof. Reddy and the other members of the Organising Committee for a work well done. He hoped that such pooling of expertise would continue to benefit the field of Public Health and Human Rights.

GENERAL RECOMMENDATIONS

1. The Central and State governments should develop/refine mechanisms and guidelines for coordinated multi-sectoral planning, implementation and monitoring of public health programmes. Compliance with such mechanisms and guidelines should be ensured to effect the success of Public Health programmes in addressing the essential health needs of the people.

Implementing Agencies ε State and Central Governments

2. Capacity should be enhanced, at national and regional levels, for inter-disciplinary learning and research on linkages between public health and human rights to promote policy development and public health action. To this end, partnerships should be promoted between academic/research institutions of law, public health and social sciences as well as health NGOs and relevant government agencies. Such networks may be established and supported in countries of the South East Asia Region to serve national and regional public health needs.

Implementing Agencies ε ***World Health Organization in cooperation with National Governments of SEAR countries (Ministries of Health & Ministries of Law)***

ACCESS TO HEALTH CARE

1. **Recommendation**: Since lack of opportunities for participation of the people in the development of health care systems is a human rights violation – the consultation recommends that NHRC facilitate decentralization of authority in health care systems of the country, through Panchayati Raj and other local institutions, by devolution of appropriate financial, administrative and supervisory powers.

   Action to be taken: In all national health related programmes such as those under the Ministries, Department of Health & Family Welfare, Women and Child Development and Social Justice and Empowerment, emphasis should be on primary health care with community participation. Enlisted NGOs, with proven involvement and commitment in this area, may be appropriately involved in facilitating this process.

Implementation Steps: Each of the concerned Ministries/departments to develop and report indicators for progressive decentralization (from a minimum level to the most desirable level).

2. **Recommendation:** Since the absence of an adequate quantity of reasonable-quality health care personnel at the primary and secondary level health care facilities, resulting in lack of access to basic health care, is a human rights violation the consultation recommends that NHRC facilitate standardization and quality-assurance in the training of the various cadres of health care personnel.

   (a) Action to be taken: Restructure undergraduate education for medical, dental, nursing and rehabilitation professionals to make the training more public health oriented with regard to knowledge, motivation and skills.

   Implementation Steps: The Ministry of Health (GOI), through the relevant Councils – Medical Council of India, Dental Council of India, Indian Nursing Council and Rehabilitation Council of India– to develop plans of action (with curricular content), within one year.

   (b) Action to be taken: Develop a programme for continuing medical education of health care providers with special focus on primary health centre personnel. This should particularly place emphasis on the knowledge and skills relevant to public health, and rational use of drugs and diagnostics.

   Implementation Steps: The Ministry of Health (GOI), through the relevant Councils, develop a plan of action within one year.

3. **Recommendation**: Since any lack/inadequacy of access to health care at the various levels for the lower and middle socio-economic strata of the country would be a human rights violation - the Consultation recommends that NHRC facilitate strengthening and effective linkages of the primary, secondary and tertiary levels of the health care delivery system for dependable and assured delivery of essential health care services (acute as well as chronic).

   Action to be taken: The Ministries of health and Family Welfare at the Centre and States should develop state-specific plans for strengthening the health care delivery systems at all three levels with effective linkages and referral systems.

   Implementation Steps: The Planning Commission should coordinate the development of these plans with the Central and State Governments and seek their submission within one year.

4. **Recommendation:** Since the provision of emergency medical care for trauma related emergencies as well as medical, surgical and obstetric emergencies is a minimum requirement of a Welfare state, the Consultation recommends that NHRC should constitute an Expert Group/Task Force to identify the requirements of Essential Emergency Health Care and recommend appropriate models and guidelines; these can then be, forwarded to the Central and State governments for their review and implementation.

   Action to be taken: NHRC to constitute the Expert Group and then forward the recommendations to the Central and State governments for necessary action.

   Implementation Steps: NHRC to constitute an Expert Group and facilitate its meetings to enable submission of report in 6 months.

5. **Recommendation:** Since irrational or unethical medical practice, leading to exploitation of or injury to the citizen, is a human rights violation- the Consultation recommends that NHRC facilitate the regulation of irrational or unethical medical practice in the public and private health care sectors of the

country, through the development of guidelines for use of drugs, diagnostics and therapeutic procedures, with a regulatory framework for monitoring and enforcement.

Action to be taken: Clinical practice guidelines are to be developed for common diseases/disorders and clinical procedures. The Ministry of Health & Family Welfare, Govt. of India should coordinate their development and widespread dissemination among the health professionals to the country with the help of premier medical institutions and professional associations and relevant professional Councils (such as Medical and Dental Councils).

Implementation Steps: The Ministry of Health and Family Welfare, Government of India should complete this process within one year, with a provision for review of the guidelines every three years (or earlier if needed).

6. **Recommendation:** The Government of India should put in place an updated National Drug Policy to ensure "an adequate and reliable supply of safe, cost-effective drugs of acceptable quality to all citizens of India and the rational use of drugs by prescribers, dispensers and consumers.

   (a) Action to be taken: NHRC should call upon the Government of India to:
   i) Expand equitable access to essential medicines and ensure mechanisms to make available vital HIV–related and other essential drugs to all persons who need them, on a non-discriminatory basis.

   ii) Refrain from taking measures which would deny or limit equal access to all persons to preventive, curative or palliative pharmaceuticals or medical technologies used to treat diseases of public health importance (such as HIV/AIDS or the most common opportunistic infections that accompany them).

   iii) Adopt legislation or other measures to safeguard access to such preventive, curative or palliative pharmaceuticals or medical technologies free from any limitations by third parties; adopt all appropriate positive measures to the maximum of the resources allocated for this purpose, so as to promote effective access to such preventive, curative or palliative pharmaceuticals or medical technologies; increase access to medicines, in accordance with the health needs of the people (especially those who can least afford the costs); act constructively to strengthen pharmaceutical policies and practices, including those applicable to generic drugs and intellectual property regimes, in order to further promote innovation and the development of domestic industries consistent with national law.

   The government needs to take measures such as compulsory licensing or parallel importation to increase access to life saving drugs at affordable prices to overcome hazards to public health and nutrition caused by HIV/AIDS and other diseases. The availability of low-cost generic drugs needs to be expanded with guarantees of their quality.

   iv) To ensure availability of essential drugs at affordable prices for HIV/AIDS and other diseases of public health importance, the NHRC should issue a notice to the Government of India calling upon it to identify the various areas of government action and the measures taken / proposed especially in relation to TRIPS.

   Implementation Steps: The Ministry of Health & Family Welfare and D/O Chemicals, Government of India to report on action taken within 3 months.

   (b) Action to be taken: Ensure quality of drugs produced and marketed for use by the people, by defining minimum standards of quality and enforcing good manufacturing practices (GMP), with strong mechanisms for monitoring and regulation through national and state drug control authorities.

Implementation Steps: The Ministry of Health and Family Welfare, through Drug Controller General of India and State Drug Control Authorities to develop protocols for testing and monitoring, on an ongoing basis.

NUTRITIONAL DEFICIENCIES

1. **Recommendation:** The Consultation considered that it is essential to provide access to iodised salt, for all sections of population, on a sustained and affordable basis. Therefore, there is an urgent need to monitor the distribution and quality of iodised salt throughout the country.

   Action to be taken: i) The Consultation recommends that NHRC should direct the Central government to clearly spell out its policy summarizing the current public health evidence as well as its present administrative position. The government should come up with a status paper on this.

   ii) Surveys should be conducted on the availability of iodised salt, quality of iodisation and the prevalence of iodine Deficiency Disorders. The results should be obtained within one year and remedial actions be taken to plug the gaps.

   Implementing Agencies: NHRC to take up the matter with the Government of India (Department of Health and Salt Commissioner's Office)**.**

2. **Recommendation:** The Infant Milk Substitutes Act had been enacted to promote breast feeding and to stop unethical practices of selling infant milk substitutes. The Consultation felt that despite the enactment of the Act, some infant food manufacturers are still resorting to promotion of infant milk substitutes in illegal ways through sponsoring of events, etc.

   Action to be taken: The Consultation recommends that a review be undertaken of the implementation of the IMS Act, with specific reference to violations and a report be submitted, within 6 months, of the remedial action taken.

   Implementing Agencies: The Government of India, through the Department of Women and Child Development.

3. **Recommendation:** Right to food availability for all sections of the community, particularly those who are socially/economically underprivileged, should be ensured especially in a situation of adequate food reserves. Loss of food grains/cereals due to faulty storage or other reasons is unacceptable.

   Action to be taken: The Ministry of Agriculture, government of India to take measures to ensure food availability in coordination with other concerned Ministries such as Rural Development & Employment. It should also detail the plan of action for Food Corporation of India to monitor and reduce wastages in storage or transport.

   Implementing Agencies: The Government of India, through the Ministry of Agriculture

4. **Recommendation:** The Consultation recommends that media guidelines should incorporate the following:
   - The Practice of breast-feeding should be protected and promoted
   - Adverse effects of child marriage and adolescent pregnancy should be publicized.

- Citizens should be provided information related to the right to nutrition and provision of relevant services

Action to be taken: Guidelines to be declared by the relevant Ministries within 6 months.

Implementing Agencies: Government of India through the Ministries/Departments of Health and Family Welfare, Women and Child Development and Information & Broadcasting.

5. **Recommendation:** The Implementation of the recommendations of the NHRC sponsored workshop on Maternal Anaemia (April 2000) should be reviewed to evaluate the progress made and identify the barriers in effective implementation.

   Implementing Agencies: The Department of Women & Child Development should report to NHRC on this, within two months.

6. **Recommendation:** The proposed Public Health Regulatory Authorities should monitor the effective Implementation of the National Nutrition Policy and the National Policies of Action on Nutrition and Child.

   Implementing Agencies: Till such a time that the proposed Authorities are established, the Department of Women and Child Development should annually report to the NHRC about the implementation, utilizing criteria developed by experts.

7. **Recommendation:** The Consultation suggested that NHRC initiate an overview, by the Ministry of Law and Justice, of the level of compliance with the following international covenants to which India is a signatory:
   - Convention on the Rights of the Child (CRC)
   - Conventions on the Elimination of All Forms of Discrimination Against Women (CEDAW)
   - SAARC Declaration on the Girl Child

TOBACCO CONTROL

Preamble

The following rights of the individual are being violated due to lack of tobacco control mechanisms in India:-

1. **Right to clean air**
   - A non-smoker is forced to inhale tobacco smoke in public areas

2. **Rights of children**
   - Rights of born and unborn children are violated when they are exposed to tobacco smoke (active and passive) in the home/public areas. They are the most vulnerable and worst affected.

3. **Right to information**

- Both the smoker and non-smoker are not provided with adequate information about the harmful effects of tobacco products and, in fact, are bombarded with misinformation about tobacco products through advertisements/events/celebrity and role model linked promotion.

4. Right to education

- Both the smoker and non-smoker are not adequately educated about the drastic ill-effects of tobacco on their personal health and public health.

5. Right to redressal

- Both the smoker/non-smoker do not have any redressal mechanism for the injuries/ill effects suffered by them due to tobacco products.

6. Right to tobacco cessation programme/activities

- The smoker and his/her family have a right to have access to various cessation strategies.

In addition there are also some rights of the smoker which may be violated by regulatory measures intended for tobacco control. However, these have to superceded in the interest of public health and human rights of the larger community.

1. **Recommendation :** While welcoming the recent introduction of a bill, in the Parliament, for discouraging tobacco consumption and tobacco promotion, the Consultation recommends that all States should be addressed, to take steps for passing resolutions for adopting provisions relating to control of all other tobacco products (other than cigarettes) which are presently in the State list. As of now, such resolutions have been passed only by four States.

2. **Recommendation :** A comprehensive national tobacco policy should be evolved at the highest level, in consultation with all the stakeholders in Public Health.

3. **Recommendation :** A multi-sectoral national level nodal agency should be established for tobacco control with strong representation from legal, medical and scientific communities.

   Implementing Agency: Ministry of Health and Family Welfare, Government of India.

4. **Recommendation :** The right of the people to access correct information related to the effects of tobacco consumption must be promoted through programmes of information, education and communication. Such programmes should be adequately supported through dedicated resource allocation.

   Implementing Agency: Central and State Health Ministries, in coordination with Ministries of Information and Broadcasting and Education.

5. **Recommendation:** Assistance for smoking cessation should be integrated into health care services.

   Implementing Agency: Central and State Ministries of Health

6. **Recommendation:** The Consultation felt that there was a need to review the provision of various incentives for tobacco industry under different Acts including the Tobacco Board Act, 1975, and for doing away with all subsidies (direct and indirect) being provided to the industry.

   Implementing Agency: Department of Commerce.

ADDITIONAL RECOMMENDATIONS

(i) Section 2(d) of the Protection of Human Rights Act, 1993 defines human rights as rights related to life, liberty, equality and dignity of the individual guaranteed by the Constitution or embodied in the International Covenants and enforceable by the Courts in India

(ii) The right to health is an integral facet of the right to life. Article 21 of the Constitution of India states that "No person shall be deprived of his life or personal liberty except according to procedure established by law". This has been interpreted by the law courts as conferring the right to health and medical care as fundamental rights to all citizens.

(iii) The Directive Principles enshrined in the Constitution also cast obligations on the State to implement policies that would ensure basic needs of the citizens, including health and medical care.

(iv) Article 25 of the Universal Declaration of Human Rights (UDHR) and Article 12 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) refer to the right to enjoyment of the highest attainable standard of physical and mental health. ICESCR has also prescribed certain minimum core obligations of the State parties to the effect that States should comply with them regardless of the level of their economic development.

(v) India has ratified the Convention against Elimination of All Forms of Discrimination against Women, 1979 (CEDAW), under which, it has assumed obligations to fulfill protective provisions of that Covenant.

(vi) The core obligation of the state is to provide minimum services including health and medical care to all categories of people, especially the people below the poverty line. It is the duty of the Government to increase the access of vulnerable sections of people, including women, to appropriate and user-friendly health services.

(vii) Public expenditure on health care in India including preventive health care forms only 2% or less of the GDP. Provision of adequate budget for primary health care, while according priority over secondary/tertiary health care, is very much necessary.

(viii) Identifying the problems faced by the common man in accessing health care (eg. Availability of medicines for common ailments at affordable prices, emergency services, x-ray facilities at affordable cost).

(ix) On the average, people in the rural areas have to cover long distances to reach a hospital. It is essential to minimize the distance by locating the PHCs closer to the communities

(x) All PHCs should be made functional atleast with one Doctor, Nurse and Health worker. Powers need to be delegated to the Panchayats for running the PHCs and for maintenance of PHC buildings.

(xi) People at present do not get proper information at the PHCs and hospitals. It is necessary to recognize their Right to Information and provide accurate information to patients at Medical Colleges/Institutions and PHCs.

(xii) Revival of the Committees already constituted under the District Magistrates on health matters.

(xiii) Strengthening inspection and monitoring system by the Government at various levels.

(xiv) Taking up projects for health campaigns on the pattern of literacy campaigns and organising health awareness camps with the help of NGOs in endemic areas.

(xv) Identification of the villages, blocks, districts and States with the worst health systems, appropriate targeting and development of suitable monitoring mechanisms.

(xvi) Education of the girl child and awareness campaign amongst women through ICDS and other women oriented programmes.

(xvii) Posting of trained health workers in the ICDS projects.

(xviii) Training of health workers/volunteers (both male and female).

(xix) Identification and networking with credible NGOs engaged in the area of health.

(xx) Review and regular monitoring of emergency facilities at various hospitals.

(xxi) Partnership with private/corporate sector for having complementary facilities.

(xxii) Financial/administrative autonomy to health institutes/medical colleges.

(xxiii) Compulsory service of doctors in rural areas for fixed tenures. Development of best medical practices (from Human rights perspective) in the syllabus of medical colleges/institutions for nurses and other health professionals.

(xxiv) Preparation and distribution of a handbook on best medical practices for various categories of health personnel.

(xxv) Regular training programmes for doctors/nurses/health workers. Statistics on health needs are not often available either with the Government or the public health institutions. It is, therefore, necessary that steps to collect reliable data from Government departments / institutions are taken on priority.

1. *Annexes*

PUBLIC HEALTH & HUMAN RIGHTS - PERSPECTIVES & ISSUES

Dr. Palitha Abeykoon

1. Introduction

A number of recent events, such as the HIV/AIDS pandemic, women's health issues, including violence, and the human rights violations in the Balkans and the Great Lakes region in Africa, focused global attention on the intrinsic connections that exist between health and human rights. Each illustrated distinct, but linked, pieces of the health and human rights paradigm.

The field of public health and human rights have their commonalties. Both represent universal aspirations; both are obligations of governments towards their people, and each supports and requires the fulfillment of the other. Reproductive health issues in the 1980s and, later, HIV/AIDS have highlighted the mutually reinforcing and synergistic nature of this relationship. Public health abuses have been exemplified by the excessive institutionalisation of people with physical or mental impairments where alternate care and support approaches have not been considered. And far from uncommon is discrimination in the health care

setting on the basis of health status, gender, race, colour, language, religion or social origin, or any other attribute that can impact the quality of services provided to individuals by or on behalf of the State.

The HIV/AIDS pandemic catalysed the defining of the structural connections between health and human rights. The first WHO global response to AIDS[1] in 1987 embodied the call for human rights and for compassion and solidarity with people living with HIV/AIDS. It recognised the protection of the human rights of people living with HIV/AIDS as a necessary element of the worldwide public health response to the emerging epidemic. This was the first time that human rights were explicitly named in a public health strategy. Framing this public health strategy in human rights terms allowed it to become anchored in international law, thereby making governments and intergovernmental organisations publicly accountable for their actions toward people living with HIV/AIDS. The groundbreaking contribution of this era lies in the recognition of the applicability of international law to HIV/AIDS issues and in the attention this approach then generated to the linkages between other health issues and human rights - and therefore to the ultimate responsibility and accountability of the state under international law for issues relating to health and well-being[2].

2. International developments

International conferences under the auspices of the United Nations system, ranging from the World Summit for Children, held in 1990, to the World Conference on Racism, to be held in 2001, are relevant to health and human rights concerns. The 1994 international Conference on Population and Development[3] and the 1995 Fourth World Conference on Women[4] resulted in the first concrete linkages of health and human rights in international consensus documents and helped focus attention to the dual obligations of governments regarding both health and human rights (Chapters IV through VII of the former's Report, and chapter IV (C) Women and Health, and (I) Human Rights of Women of the latter's). Their documents helped governments and others in shaping policy and programmatic work which explicitly dealt with these linkages, as well as to activists and NGOs in framing their advocacy for government responsibility for health in the human rights language of responsibility and accountability.

In the United Nations (UN) system, the 1997 Program for Reform[5] put out by the UN Secretary-General has moved the conceptual attention to human rights towards implementation and action within their own work. It designates human rights as among the core activities of the UN system. Significant among the recent strategic changes of organisations in this system are:

- The United Nations Children's Fund (UNICEF)[6] has restructured its policy and programmatic framework around the Convention on the Rights of the Child
- The Joint United Nations Programme on HIV/AIDS (UNAIDS)[7] recognises human rights as a cross-cutting theme relevant to all aspects of its policy and program work
- The United Nations Development Program (UNDP) has signed a Memorandum of Understanding[8] with the Office of the High Commissioner for Human Rights
- The UNDP Human Development Report for the year 2000 has an explicit focus on human rights
- The World Health Organization (WHO)[9] is currently preparing its first-ever strategy on health and human rights
- Two health-related focal points were recently appointed in the Office of the High Commissioner for Human Rights: one responsible for integrating HIV/AIDS issues into the work of the human rights bodies and structures, and the other serving as a general liaison for all health and human rights issues.

At the country level, the National Human Rights Commission of India had held two consultations on maternal anaemia and HIV/AIDS. Nepal [10] had held a comprehensive workshop on tuberculosis and human rights. In 1998, the then US President issued an Executive Order in commemoration of Human Rights Day that obliges the United States to fully respect and implement its obligations under the international human

rights treaties to which it is a party and to "promote respect for international human rights in our relationships with all other countries."[11] All U.S. federal agencies, including those with health related responsibilities, were directed to re-examine their policies and strategies from the perspective of international human rights standards.

Non-governmental organizations (NGOs) are increasingly using the rhetoric of human rights and its method of analysis to help shape their interventions in health or development issues. The International Council of AIDS Service Organization (ICASO)[12] has recently named the promotion of human rights in the context of HIV/AIDS as one of its fundamental organizing principles. Human rights NGOs are expanding their formerly tight focus on civil and political rights to pay increasing attention to economic, social and cultural rights, including the right to health. These developments are helping to shape new forms of advocacy and to put increased pressure on governments to take responsibility for the health of their populations. The current challenge is to ensure that the increased rhetorical attention to rights translates into policies, national legislation and actions that will effectively impact on the underlying conditions necessary for health, as well as the ways in which health policies, programmes and services are conceptualised and delivered.

Academic centres with an explicit focus on the linkages between health and human rights[13-15] are working round the work, some with a focus on specific, substantive issues, others concerned with health and human rights more broadly. Prominent among these Centres are.

- Francois-Xavier Bagnoud Centre for Health and Human Rights at the Harvard School of Public Health
- Macfarlane Burnett Centre for Medical Research in Australia
- Program on Gender, Sexuality, Health and Human Rights at the Mailman School of Public Health at Columbia University
- Netherlands Institute of Human Rights (SIM)
- Department of Community Health at the University of Cape Town, South Africa.

These centres are offering courses in health and human rights. The Harvard School of Public Health took the lead with its course on health and human rights, first offered in 1992. Courses on health and human rights are now offered in various countries, including the United States, France, Sweden, Brazil, South Africa and Zimbabwe. A number of international conferences have been held on health and human rights. Professional journals in medical and health sciences are disseminating essential information on health and human rights besides organising discussion on crucial issues.[16-18]

3. What are Human Rights ?

The importance of human rights for governmental action and accountability was first widely recognised only after World War II when the promotion of human rights was identified as a principal purpose of the newly created United Nations.[19] The United Nations Charter [19] established general obligations that apply to all its member states, including respect for human rights and dignity. In 1948, the Universal Declaration of Human Rights[20] was adopted as a common standard of achievement for all peoples and all nations. The basic characteristics of human rights are that they are the rights of individuals, which inhere in individuals because they are human; that they apply to people everywhere in the world, and that they are principally concerned with the relationship between the individual and the state. In practical terms, international human rights law is about defining what governments *can do to* us, *cannot* do *to* us, and *should* do *for* us. For example, governments obviously should not do things like torture people, imprison them arbitrarily or invade their privacy. Governments should ensure that all people in a society have shelter, food, medical care and basic education.

The key international human rights treaties, formulated in 1976 under the auspices of the United Nations the International Covenant on Economic, Social and Cultural Rights (ICESCR)[21] and the International Covenant on Civil and Political Rights (ICCPR)[22], further elaborate the content of the rights set

out in the UDHR and contain legally binding obligations for the governments that ratify them. As of January 2000, 142 countries had ratified the ICESCR and 144 had ratified the ICCPR. Together with the UDHR and the United Nations Charter, these documents are often called the international Bill of Human Rights[23] . Building upon these core documents, other international human rights treaties have focused on either specific populations, e.g., the International Convention on the Elimination of All Forms of Racial Discrimination[24] (1965), the Convention on the Elimination of All Forms of Discrimination Against Women[25] (1979), and the Convention on the Rights of the Child[26] (1989), or on specific issues, e.g., the Convention Against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment[27] (1985).

There are also regional human rights treaties, essentially concerning the same sets of rights but are only open for signature by states in the relevant region, such as the African Charter on Human People's Rights[28] (1986), the American Convention on Human Rights[29] (1992), and the European Convention on the Protection of Human Rights[30] (1959). ***Only the Asian region does not have such a treaty.*** A number of international declarations, resolutions and recommendations, although not strictly binding in a legal sense, express the political commitment of governments to promote and protect human rights and provide broadly recognised norms and standards, e.g., the Declaration on the Elimination of all Forms of Intolerance and of Discrimination Based on Religion or Belief[31] (1981).

Individually and collectively, these documents have helped elaborate provisions relevant to vulnerable groups, to women's human rights, and to broader concepts of health and human rights. Those commitments have helped create new approaches for considering the extent of government accountability for health issues, as well as for determining the content of health issues using a rights framework[32]. In so doing, these conference documents are helping to clarify the evolving meaning of the relationship between health and human rights and the steps needed for implementation.

4. A Human Rights Perspective on Health

The rights described in the human rights documents have been divided into civil and political rights on the one hand and economic, social and cultural rights on the other. Economic, social and cultural rights include, among others, the rights to the highest attainable standard of health, to work, to social security, to adequate food, to clothing and housing, to education, and to enjoy the benefits of scientific progress and its applications. The Convention on the Rights of the Child[26] is the only one so far to include civil, political and economic and social rights considerations not only within the same treaty but within the same right. Nearly every article of every document can be understood to have clear implications for health. While the rights to information, to education, housing and safe working conditions, and to social security, for example, are particularly relevant to the health and human rights relationship, the following three rights are of specific importance:

4.1 Non-discrimination

Within the international human rights framework, discrimination is a breach of a government's human rights obligations.[33] Discrimination frequently reinforces social inequalities and denies equal opportunities. Common forms of discrimination include racism, gender-based discrimination and homophobia. The United Nations Commission on Human Rights[33] has stated, “all are equal before the law and entitled to equal protection of the law from all discrimination and from all incitement to discrimination relating to their state of health”.

Discrimination compounds the **effects of poverty**; it is at the root of disease and of premature death. It can impact directly on the ways that the burden of disease-morbidity, mortality and diability are measured and acted upon. The burden of disease is dependent on the unequal capacity of individuals to access information, understand the risks to which they been exposed, and acquire the ability and freedom to both reduce these risks and to access preventive and care services when they are needed. Acting positively about health and human rights implies recognising who, in society, is at a disproportionate risk of ill health.

Counting, and counting well; counting while protecting people's dignity and privacy is the beginning of a successful approach towards better health and rights.

Discrimination also affects **lifestyles.** The patterns of smoking in the world show the tobacco industry taking a new focus on those with limited access to information and education and those whose ability to choose and decide on matters related to their own health are limited by economic and social pressure. Around the world, lower income, lower education and lower purchasing power increasingly translate into higher rates of smoking and a higher probability of dying from it. New ways have to be found to hold multi-national companies marketing tobacco accountable and for governments to fulfill the human rights obligations raised by this new challenge, including the rights of children to be protected against the promotion of harmful substance use.

Discrimination in **health system,** including health centres, hospitals or mental institutions may further contribute to exacerbating disparities in health. This concerns not only diseases that are already stigmatised, such as AIDS, tuberculosis and cancer, but also others, such as diabetes, and cardiovascular diseases which could be alleviated if *equal treatment* within societies and within health care settings became the norm.

Discrimination can also be at the root of unsound **human development policies and programmes** that may impact directly or indirectly on health. For example, a major development project may require the displacement of entire populations and fall to pay sufficient attention to the new environment to which these populations will have to adjust. Apart from the perspective of the possible further spread of such infectious diseases as malaria and other water-borne diseases, the psychological capacity of displaced communities to relocate and rebuild new lives, or the long-term physical and social consequences of such displacement, also need to be factored into the equation.

4.2 Right to Enjoy the Benefits of Scientific Progress and its applications

This right is recognised explicitly in the ICESCR[21] at Article 15. It includes governmental obligations for the steps necessary to conserve, develop and diffuse science and scientific research, as well as freedom of scientific inquiry. The implications of this right for health issues have been explored recently with respect to access to drugs for the developing world. This right is increasingly being cited by activist groups, NGOs and others concerned by the large and growing disparities and inequities between wealthier and poorer populations regarding access to anti-retroviral therapies and other forms of HIV/AIDS care. The relevance of this right to concerns about the development of vaccines that adequately respond to the specific needs of all populations, both in the north and in the south, has recently been cited.

4.3 The Right to Health

As defined in the preamble of the WHO Constitution[34], health is a “state of complete physical mental, and social well-being, and not merely the absence of disease or infirmity.” This definition illustrates the indivisibility and interdependence of rights as they relate to health, by recognising that the enjoyment of the highest attainable standard of health was one of the fundamental rights of every human being and that governments have a responsibility for the health of their peoples, which can be fulfilled only through the provision of adequate health and social measures[14, 15, 35, 36].

Rights relating to autonomy, information, education, food and nutrition, association, equality, participation and non-discrimination are integral and indivisible parts of the achievement of the highest attainable standard of health, just as the enjoyment of the right to health is inseparable from other rights, whether categorised as civil and political, economic, social or cultural. Thus, the right to the highest attainable standard or health builds on, but is by no means limited to, Article 12 of the International Covenant on Economic, Social and Cultural Rights. It transcends virtually every single other right.

As first elaborated in the ICESCR[21], the right is set forth only as “the right to the highest attainable standard of physical and mental health,” with obligations understood to encompass both the underlying preconditions necessary for health and the provision of medical care.

4.4 Article 12 of the International Covenant on Economic, Social and Cultural rights[21]

1. The States Parties to the present Covenant recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.
2. The steps to be taken by the States Parties to the present Covenant to achieve the full realisation of this right shall include those necessary for:
   a. The provision for the reduction of the still birth-rate and of infant mortality and for the healthy development of the child;
   b. The improvement of all aspects of environmental and industrial hygiene;
   c. The prevention, treatment and control of epidemic, endemic, occupational and other diseases;
   d. The creation of conditions, which would assure to all medical service and medical attention in the event of sickness.

The WHO definition[34] projects a vision of the ideal state of health as an eternal and universal goal to constantly strive towards. The ICESCR definition[21] differentiates the two attributes of health — physical and mental well-being— and is specifically concerned with assigning particular responsibilities to the governmental health sector; it assigns obligations relevant to social well-being to the same governments under other articles of the treaty. The right to health as stated in the ICESCR is the principal framework for understanding governmental obligations under the right to health.

The 1978 **Declaration of Alma-Ata**[35] called on nations to ensure the availability of the essentials of primary health care, including: education concerning health problems and the methods for preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common disease and injuries; and provision of essential drugs.

In 1998, the World Health Assembly reaffirmed the commitment of nations to strive towards these goals in a **World Health Declaration**[36] that stressed the "will to promote health by addressing the basic determinants and prerequisites for health" and the urgent priority "to pay the greatest attention to those most in need, burdened by ill health, receiving inadequate services for health or affected by poverty." These ambitious objectives of health development need to be considered from the perspective of the role of governments in ensuring equal and equitable access to medical care and health promotion while striving to create the underlying conditions necessary for health.

5. Governmental obligations for health with respect to human rights

The construct of a health and human rights strategy[15, 37, 38] arises from the recognition of three sets of human rights obligations. Governments have the obligation to:

- **respect** human rights, by refraining from interfering directly or indirectly with the enjoyment of human rights. No health practice, policy, programme or legal measure should violate human rights. The provision of health services should be ensured to all population groups on the basis of equality and freedom from discrimination, paying particular attention to vulnerable and marginalised groups.
- **protect** human rights, by taking measures that prevent non-state actors, such as private health care providers, health insurance companies and the health-related industry, from interfering with human rights. Governments should acquire an enhanced capacity to analyze health-related actions or inactions attributable to non-state actors on the national and international levels, and act accordingly.
- **fulfill** human rights, by adopting appropriate legislative, administrative, budgetary, judicial, promotional and other measures towards the full realisation of human rights. A state could be found

to be in violation of the right to health if it failed to incrementally allocate sufficient resources to meet the public health needs of the communities within its borders. Governments should be supported in their efforts to develop, and apply these measures and monitor their impact, with an immediate focus on vulnerable and marginalised groups.

Central to the responsiveness of health systems to people's needs is the concept of dignity. Respect for dignity is often challenged by overburdened health systems where time for treating disease seems to compete with time for treating patients. Dignity is a hard-to-define concept.

6. Applying the Right to Health

In may 2000, the Committee on Economic, Social and Cultural Rights adopted a General Comment[39] on Article 12 of the Covenant on Economic, Social and Cultural rights: the right to the highest attainable standard of health. This General Comment lays out directions for the practical application of Article 12 and a monitoring framework. Three selected aspects of the document that have important implications for public health practice:

6.1 Progressive Realisation of the Right to Health

A commitment to the health requires more than just passing a law. It requires financial resources, trained personnel, facilities and, more than anything else, a sustainable infrastructure. Therefore, realisation of rights is generally understood to be a matter of progressive realisation of making steady progress towards a goal (ICESCR[21], Art. 2.1). The principle of "progressive realisation" is fundamental to the achievement of human rights as they apply to health.[40] This is critical for developing countries that are responsible for striving towards human rights goals to the maximum extent possible. It takes into account the inability of Governments to meet their obligations overnight, given that the advancement of health necessitates infrastructure and human and financial resources that may not match its existing or future needs. It creates an obligation on Governments to show how and to what extent they are achieving progress towards health goals. As Dr Gro Harlem Brundtland, the Director-General of WHO, emphasises,[41] "Even when governments are well-intentioned, they may have difficulty fulfilling their health and human rights obligations. Governments, the WHO and other intergovernmental agencies should strive to create the conditions favourable to health, even in situations where the base of public finance threatens to collapse."

6.2 Human Rights Limitations in the Interest of Public Health

There are situations where it is considered legitimate to limit rights in order to achieve a broader public good. As described in Article 4 of the International Covenant on Civil and Political Rights,[22] the public good can take precedence to "secure due recognition and respect for the rights and freedoms of others; meet the just requirements of morality, public order, and the general welfare; and in times of emergency, when there are threats to the vital interests of the nation." Public health is one such recognised public good. The specific power of the state to restrict right in the state of public health derives from Article 12 (c) of the ICESCR,[21] which gives governments the right to take the steps they deem necessary for the "prevention, treatment and control of epidemic, endemic, occupational and other diseases."

Traditional public health measures have generally focused on curbing the spread of disease by imposing restrictions on the rights of those already infected or thought to be most vulnerable to becoming infected. Coercion, compulsion and restriction have historically been their significant components.[42-44] Interference with freedom of movement when instituting quarantine or isolation for a serious communicable disease, like Ebola fever, is an example of a limitation on rights that may be necessary for the public good and therefore may be considered legitimate under international human rights law. Yet, arbitrary restrictive measures by public health authorities that fail to consider other valid alternatives are both abusive of human rights principles and in contradiction with public health "best practice." The restrictive measures traditionally applied to epidemic control are generally ineffective or even counter-productive in the public health response to the HIV/AIDS pandemic.[32, 45, 46]

Certain rights are absolute, which means that restrictions may never be placed on them, even if justified as necessary for the public good. These include such rights as the right to be free from torture, slavery or servitude; the right to a fair trial; and the right to freedom of thought. Article 4 of the International Covenant on Civil and Political Rights, which states in pertinent part that "No derogation from articles 6, 7, 8 (paragraphs 1 and 2), 11, 15, 16, 18 may be made under this provision. Paradoxically, the right to life, is not absolute; what is forbidden is the arbitrary deprivation of life.

Interference with most rights can be legitimately justified as necessary under narrowly defined circumstances in many situations relevant to public health. Article 4 of the ICCPR,[22] states in pertinent part, "In time of public emergency which threatens the life of the nation and the existence of which is officially proclaimed, the States Parties to the present Covenant may take measures derogating from their obligations under the present Covenant to the extent strictly required by the exigencies of the situation, provided that such measures are not inconsistent with their other obligations under international law and do not involve discrimination solely on the ground of race, colour, sex, language, religion or social origin."

Limitations on rights are considered a serious issue under international human rights law, regardless of the apparent importance of the public good involved. When a government limits the exercise or enjoyment of a right, this action must be taken only as a last resort and will only be considered legitimate if the following criteria[48] are met:

1. The restriction is provided for and carried out in accordance with the law
2. The restriction is in the interest of a legitimate objective of general interest
3. The restriction is strictly necessary in a democratic society to achieve the objective
4. There are no less intrusive and restrictive means available to reach the same goal
5. The restriction is not imposed arbitrarily, i.e., in an unreasonable or otherwise discriminatory manner

This approach, called the Siracusa Principles,[48] has long been recognised by those concerned with human rights monitoring and implementation as relevant to analysing to a government's actions. It has also recently begun to be considered a useful tool for health-related policies and programmes.[49] This framework, although still rudimentary, may be helpful in identifying public health actions that are abusive, whether intentionally or unintentionally.

6.3 Monitoring Health and Human Rights

For monitoring health and human rights, indicators are required that reflect compliance with health and human rights principles of the *processes* of policy and programme development. For instance, through appropriately designed indicators and monitoring systems, the State should be able to show evidence that efforts towards collecting and analysing data do not discriminate against any population groups.[49] It should be able to show that the process of policy development, programme design and resource allocation was/is inspired by, and respectful of human rights principles, including participation, equality and non-discrimination. The dual emphasis on outcome and process monitoring is particularly relevant here as a long interval may separate the time when chosen measures are taken from the time their impacts begin to be felt.

The accountability of governments for their legal commitments and the extent of their compliance with the obligations to respect, protect and fulfill human rights is monitored at the international level through the reporting process and, in many places, at the national level by governments themselves through the creation of commissions and ombudspersons, as well as by NGOs.

6.3.1 Reporting under the Human Rights Treaties

The General Guidelines[50] provided to governments for reporting on the right to health under the International Covenant on Economic, Social and Cultural Rights (appendix) provide a concrete example of what the treaty body with primary responsibility for implementation of the right to health considers in

determining if and the degree to which a government is in compliance with its obligations for the right to health.

Non-governmental organisations have a critical role to play in monitoring government compliance with treaty provisions. In some countries, NGOs are increasingly using government obligations under the human rights treaties, as well as the Concluding Comments and Observations of the treaty bodies, in their advocacy efforts. The input of NGOs is also crucial at the international level in that are able to provide treaty monitoring bodies with much-needed additional outside information on the action (or inaction) of the government in question, which can then be used by the treaty body in their dialogue with that government. While the utility of the involvement of NGOs to this process is undisputed, mechanisms for ensuring their involvement in a comprehensive way, particularly with respect to health-related information, still remain to be worked out.

6.3.2 General Recommendations and General Comments Concerning Health

Increasing efforts, during the past five years, to draft authoritative interpretations of the rights to health have taken the form of General Comments or General Recommendations. Aimed at ensuring state responsibility and accountability with respect to health in a structured way, these General Comments are drafted and endorsed by the treaty monitoring body and form the basis of the treaty body's formal understanding of the content of a particular right or issue. They serve as a guide for governments concerning the issues they must consider in making their periodic reports under the guidelines, for NGOs in their monitoring of governmental action, and for the treaty bodies themselves in their dialogue and interaction with governments in the context of the monitoring process.

Those specifically on Health are:

- General Recommendation on Health [51] issued by CEDAW Committee, monitoring governmental compliance under the Women's Convention (1999)
- General Comment on the Right to Health[52] issued by the Committee on Economic, Social and Cultural Rights, the body responsible for monitoring the ICESCR (2000)

Others with health-related implications include:

- General Comments on Disability,[46] Housing [53] and Food[54] issued by the Committee on Economic, Social and Cultural Rights
- General Recommendations concerning HIV/AIDS[55]
- Female Circumcision[56] and Violence against Women[57] issued by the CEDAW Committee

6.3.3 Application of mechanisms, methods and tools.

There is need for translating the right to health into guidelines and other tools useful for monitoring progress and shortcomings in implementation of health and human rights at the national and international level. The selective use, in the past, of morbidity, mortality and disability indicators was severely constrained by incomplete national data, differences in measurement methods across countries and an inability to relate health outcomes to the performance of health systems. Most of these indicators were applied at a national, aggregate level with insufficient attempts to disaggregate the data collected to reveal the disparities that exist within nations that may be associated with a variety of human rights violations-in particular, discrimination.

WHO is developing monitoring methods and indicators, that are aimed at redirecting attention from disease-specific morbidity and mortality trends towards others that are more reflective of the degree to which health and human rights principles are respected, protected and fulfilled.[58] The following five global indicators are aimed at improving the knowledge and understanding of health status and trends, and relating these trends to health system performance:

1. **Healthy life expectancy:** A composite one incorporating mortality, morbidity and disability in a disability-adjusted life years measure, this indicator will reflect time spent in a state of less-than-full health.
2. **Health inequalities:** The degree of disparity in healthy life expectancy within the population.
3. **Responsiveness of health systems:** This composite indicator reflects the protection of dignity and confidentiality in and by health systems and people's autonomy (i.e., individual capacity to effect informed choice in health matters).
4. **Responsiveness inequality :** Focusing on the disparity in responsiveness within health systems, it brings out issues of low efficiency, neglect and discrimination.
5. **Fairness in financing**: By measuring the level of health financing contribution of households.

WHO will collect this data through built-in health information systems, demographic and health surveys conducted periodically in countries and other survey instruments. WHO is committed to working with countries towards increasing their capacity to collect this information, and to determine additional data and targets that may be specifically suited to country-specific situations and needs. These data will be used to assess trends in the performance of national health systems, inform national and international policies and programmes, make comparisons across countries and monitor global health. This process will support the development of national benchmarks in accordance with each country's set of health priorities and information needs. These developments hold promise in the context of future development and application of the health and human rights framework.

In several countries, including Brazil, Thailand and South Africa, human rights principles relevant to health recently have found their way into national legislation and new constitutions, thereby ensuring citizens the right to seek fulfillment of their right to care, for example, through national juridical means. As the methods and tools for monitoring and accountability of health related issues mature, it is likely that cases of human rights violations related to health will increasingly be heard both within countries and at the regional and international level.

6.3.4 Mainstreaming human rights

This is the process of assessing the human rights implications of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making human rights an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in political, economic and social spheres.

In the 1990s, **UNICEF** has been ensuring that their policy and programmatic work would be guided by the principles and standards established by the Convention on the Rights of the Child, and the Convention on the Elimination of All Forms of Discrimination Against Women. Its 1996 Mission Statement explicitly identifies pursuit of the rights of children and of women as a fundamental purpose of the organisation. These have resulted in a restructuring of UNICEF and adoption of a rights-based approach to all programming efforts at all level of its work.

Under the dynamic leadership of its Director General, Dr. Gro Harlem Brundtland, **WHO** is currently engaged in defining its global public health responsibilities and role from a health and human rights perspective, developing a strategy that builds on its existing Corporate Strategy and drawing a new action and research agenda.[59] The process, started in 1999, aims at defining the goals of human rights mainstreaming for their national and international health work. This followed a 1998 World Health Assembly Resolution that set out the need to promote and support the rights and principles, actions and responsibilities enunciated in the World Health Declaration through concerted action, full participation and partnership, calling on all peoples and institutions to share the vision of health for all in the twenty-first century, and to endeavor in common to realise it. In 2000, work began toward a strategy document, that would incorporate health and human rights into the policy and programme work of WHO.

The World Health Report 2000 applied a new set of indicators to help determine the profiles of national health systems around the world. With further improvement, these indicators can become more "human rights sensitive", and produce relevant evidence for a health and human rights analysis of health systems. Such an approach could link disparities in health and health system performance between and within each nation with progress being achieved in the realisation of human rights.

In May 2000, the World Health Assembly adopted a WHO Corporate Strategy,[60] which addresses four directions for public health. Health and human rights are relevant to each of these strategic directions.[60]

1. **Reducing excess mortality, morbidity and disability**, especially in poor and marginalised population. It does this by getting information about who is healthy and who is not, and by applying proven methods of prevention, care and support.
2. **Promoting healthy lifestyles and reducing risk factors** to human health that arise from environmental, economic, social and behavioral causes.
3. **Developing health systems** that equitably improve health outcomes, respond to people's legitimate demands and are financially fair.
4. **Developing an enabling policy and institutional environment** in the health sector and promoting an effective health dimension to social, economic environmental and development policy to ensure that such polices and consequent programmes contribute to the advancement of health

This strategy, thus, serves as a useful typology and the backbone for a WHO health and human rights strategy. Its primary goal is to advance global public health through an enhanced interaction between the Organization and its Member States. It also aims to ensure that the Hippocratic dictum of "first and foremost, cause no harm" is applicable not only to individual but also public health practices.

To pursue these directions, WHO is proposing to contribute to the building of skills and knowledge within the Organization and in countries; perform an internal review of its policies and programmes to verify their conformity with health and human rights principles; further its cooperation with the Office of the High Commissioner for Human Rights and the treaty monitoring bodies; disseminate information; and develop and refine human rights-sensitive monitoring and evaluation processes applicable nationally and internationally.

7. Globalisation and Health Development

The definition of health enshrined in the WHO Constitution[34] helped move health thinking beyond a limited biomedical- and pathology-based perspective towards the more positive domain of well being, understood to include recognition of individuals and their need to realise aspirations, to satisfy needs and to change or cope with their environments. The societal dimensions of this effort find emphasis in the Declaration of Alma-Ata[35] (1978), and the Ottawa Charter for Health Promotion[61] (1986). The Alma-Ata Declaration[35] describes health as a social goal whose realisation requires the action of many social and economic sectors in addition to the health sector. The Ottawa Charter[61] proposes that the fundamental conditions and resources for health are peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice and equity.

The earlier part of the 20th Century held out hopes that antibiotics and progress in vaccines and biomedical technology would provide the tools sufficient to enable individuals everywhere in the world to reach the highest attainable standard of physical, mental and social well-being. However, now it is increasingly being realised that the major determinants of better health lie outside the health system, and include better education and information, as well as fulfillment of an array of rights which are relevant to, but not intrinsically connected to, the right to health. Thus, health requires attention to the increasingly complex relationship of people to their environment and an understanding of respecting, protecting and fulfilling human rights as a necessary prerequisite for the health of individuals and populations. As both the Alma-Ata Declaration[35] and the Ottawa Charter[61] reflect, regardless of the effectiveness of technologies,

there is need to address civil, cultural, economic, political and social conditions as well as both at global and local level.

Dr. Brundtland has drawn attention to the new set of human rights issues from globalisation and the direct impacts of intensifying global flows of money, trade, information, culture and people on health and related aspects of human development. Globalisation, and the privatisation of the means of production and services that inherently accompany it, can contribute to the advancement of health through the sharing of information, technologies and resources, as well as through the competition it generates to provide more effective, more widely available and higher-quality services.

At the same time, globalisation can stimulate the spread of health hazards and disease as a result of intensified population mobility, or through the worldwide marketing of harmful substances, such as tobacco and alcohol. If poorly conceived and monitored, it can contribute to the widening of inequalities by increasing the autonomy and well being of some sectors of the population while producing negative consequences for others without access to safety nets to support the fulfillment of essential needs.[63-67]

Non-state actors are now influencing the health and well-being of people to an unprecedented extent, comparable even to the influence of governments.[68] Governmental roles and responsibilities are increasingly being delegated to non-state actors whose accountability for what they do, do not do or should do about people's health is poorly defined and inadequately monitored. The role of the state is to ensure that all human beings are guaranteed their basic human rights, including the right to the highest attainable standard of health, whether his obligation is fulfilled directly through government-run services or through private intermediaries. There is today a universal need to reinforce the commitment and capacity of governments to ensure that actions taken by the private sector and other actors in civil society relevant to health and other aspects of human development, both within and outside the boundaries of nation-states, are informed by and comply with human rights principles.

While multinationals may choose to adopt ethical guidelines and codes of conduct, there is no international human rights law that directly applies to them or to actions.[68-70] From a health and human rights perspective, the desirable forms and extent of responsibility for multinational actors within the international legal system have yet to be defined in ways that help to effectively shape international trade agreements and to ensure their accountability.

8. Convergence of Public Health and Human Rights- From Concept to Practice

Human rights provide public health with an internationally agreed upon framework for setting out the responsibilities of governments under human rights law as these relate to people's health and welfare. The convergence of health and rights is in sight when health policies are informed by, and respectful of human rights and dignity. A systematic review of governmental policies and programmes on how and to what extent they are respectful of human rights and of benefit to public health is a critical first step in optimising the relationship between health and human rights. Such a review will help improve new and existing policies and programmes by assessing their validity, applicability and soundness. It will address their practical implications from both human rights and public health perspectives. Gruskin and Tarantola[71] (2001) have suggested the following questions as a starting point to help guide this analysis:

- What is the specific intended purpose of the policy or programme?
- What are the ways and the extent to which the policy or programme may impact positively and negatively on health?
- Using the relevant international human rights documents, what and whose rights are impacted positively and negatively by the policy or the programme?
- Does the policy or programme necessitate the restriction of human rights?
- If so, have the criteria/preconditions to restrict rights been met?

- Are the health and other relevant structures and services capable of effectively implementing the policy or programme?
- What system of monitoring, evaluation, accountability and redress exist to ensure that the policy or programme is progressing towards the intended effect and that adverse effects can be acted upon?

8.1 Human Rights Framework to Health Policies and Programmes

Such a framework can provide a method of analysis and framework for action to shape specific interventions aimed at reducing the impact of health conditions on the lives of individuals and populations. Gruskin and Tarantola[72, 73] has suggested such an analytical and action-oriented framework by combining the four directions of public health and the three sets of governmental obligations with respect to human rights (Table 1). This framework builds on each of the four dimensions of public health: disease and impact reduction, promotion of healthy lifestyles, strengthening of health systems and human development policies informed by health. Intersecting with each of these directions are the three human rights obligations: to respect human rights (not to violate rights), to protect human rights (be attentive to non-state actors) and to fulfill human rights (take measures to promote human rights, and establish redress mechanisms).

Specific actions suggested include the development of adequate monitoring tools reflecting both health and human rights concerns; the application of health and human rights principles to policy development and practices, and the creation of a significant research agenda to advance our collective understanding of the health and human rights relationship. Such an analysis could be extended to examine how those approaches, recognised as best health practice in each of the four domains, could contribute to the advancement of human rights with respect to each level of governmental obligation.

A similar analytical framework can be applied to specific public health domains like the design of disease control approach. The analysis can begin by identifying public health options for effective disease control and, using the three sets of governmental obligations with respect to human rights, consider which intervention achieves the highest results in both health and human rights terms. People engaged in the promotion or protection of human rights may begin their analysis by examining a specific right and seeking how, and to what extent the violation or the lack of realisation of this right may impact on health.[74]

This approach requires working with the international human rights documents to determine the specific rights applicable to a given situation, and then considering how and to what extent morbidity, mortality, disability, risk behaviors and vulnerability to ill-health are caused or exacerbated by insufficient realisation of human rights. Partnership between public health practitioners and human rights experts will make these analysis most effective. It will foster a clearer understanding of the synergy between health and human rights and provide additional impetus to governments to undertake policies, programmes and actions that best serve public health while contributing to the advancement of human rights.

Figure 1. A Pathway to Health and Human Rights

	Governmental obligations with respect to human rights		
Domains of health	**Respect**	**Protect**	**Fulfill**
1. Reduce morbidity, disability and mortality	Government not to violate rights of people on the basis of their health status including in information collections and analysis, as well as in the design and provision of health and other services,	Government to prevent non state actors (including private health care structures and insurance providers) from violating the rights of people on the basis of their health status including in the provision of health and other services.	Government to take administrative, legislative, judicial and other measures to promote and protect the rights of people regardless of their health status, including the generation of data concerning health outcomes for use in guiding health policies and the provision of health and other services, as well as providing legal means of redress that people know about and can access.
2. Promote healthy lifestyles	Government not to violate rights, in particular those violations which result in, or perpetuate, lifestyles	Government to prevent non-state actors from human rights violations, in particular those which result in, or perpetuate	Government to take administrative, legislative, judicial and other measures including sufficient resource allocation to ensure that healthy lifestyles are

	associated with increased morbidity, mortality, disability.	lifestyles associated with increased morbidity, mortality, disability.	promoted, and provision of legal means of redress as applicable.						
3. Strengthen health systems	Government not to violate rights directly in the design, implementation and evaluation of national health systems, including ensuring that they are sufficiently accessible, efficient, affordable and of good quality for all members of the population.	Government to prevent non-state actors (including private health care structures and insurance providers) from violating rights in the design, implementation and evaluation of health systems and structures, including ensuring that they are sufficiently accessible, efficient, affordable and of good quality.	Government to take administrative, legislative, judicial and other measures including sufficient resource allocation and the building of safety nets, to ensure that health systems are sufficiently accessible, efficient, affordable and of good quality, as well as providing legal means of redress that people know about and can access.						
4. Develop health-sensitive policies and programmes	Government not to violate the civil, political, economic, social and cultural rights of people directly, recognizing that neglect or violations of rights impact directly on	Government to prevent rights violations by non-state actors, recognizing that neglect or violations of rights impact directly on health	Government to take all possible administrative, legislative, judicial and other measures, including the promotion of human development mechanisms, towards the promotion and protection of human rights, as well as providing legal means of redress that	health.	people	know	about	and can access.	

8.2 Building up national capacity:

For realising the full extent of the relationship between health and human rights, the many dimensions necessary for health need to be described, measured and named in human rights terms. This review offers a critical approach to assess the validity, applicability and soundness of new and existing policies and programmes, and to address their practical implications from both human rights and public health perspectives.[73] National capacity needs to be build up to ensure that this reasoned and sound analysis becomes a reality. Professional training in medical and health sciences should include the skills necessary to document and measure the health effects of neglect or violations of rights. Likewise, students and practitioners of human rights should have training to equip them with the skills necessary to analyse the complex relations between neglect or violation of rights and their health impact, and use this information to monitor and ensure government accountability. This combined approach will ensure that the health and human rights framework becomes practical and useful.

9. Conclusion

While the lack of respect for human rights shapes our vulnerability to ill health, the promotion and protection of Human Rights can be as powerful as a vaccine. Human Rights and Health Act in synergy when dignity and privacy are protected and when people can confide in a health system that listens to them and responds to their needs, without prejudice or arbitrary judgement. Public health efforts that respect, protect and fulfill human rights are more likely to succeed in public health terms than those that neglect or violate rights. Public health and human rights are progressing, in parallel, towards a common goal. They project a vision and an approach that may fundamentally and positively improve the lives of people everywhere in the world. This new synergy can be recognised, applied and monitored at the following three levels:

i) **Development of adequate monitoring tool reflecting both health and human rights concerns:** A systematic human rights analysis can guide evidence-based health policy and programme development. The information sought, collected and analysed should focus attention on both trends and disparities, and the efforts should be to address these gaps. This would include the relative successes and failures of progress achieved towards global goals. WHO and the human rights treaty bodies are currently and simultaneously engaged both in the process of setting out global indicators and in defining approaches towards the development of country-specific benchmarks against which trends and disparities can be measured. Further work is required in developing, testing and applying indicators that capture the disparities prevalent within a population, as well as those that can begin to suggest the differences between government unwillingness and incapacity. The Gini coefficient, for instance, is used by economists as a measure of economic heterogeneity within a population.

ii) **Application of the health and human rights framework to health practice:** There is a need to ensure that health systems and practice are sufficiently informed by human rights norms and standards. Sound formulation and implementation of health policies and programmes must seek to achieve the optimal balance between the promotion and protection of public health and the promotion and protection of human rights and dignity.[74] Processes to arrive at this optimal balance can be built within national systems, incorporating evidence and through participatory dialogues between decision-makers with expertise in public health, those with expertise in human rights and concerned populations. The realisation of such an approach requires additional efforts to create consultative mechanisms, as well as education and training in health and human rights.

iii) **Creation of a significant research agenda:** There is a broad need for further research and documentation to advance our collective understanding on the reciprocal impacts between human rights and health besides conceptualising and implementing policies and programmes that fully take these connections into account. Health experts have to collaborate with experts in human rights in conceptualising research agendas and carrying this work forward.

The fundamental linkages between health and human rights can provide new ways to analyse and conceive responses to health issues. Increasing attention to this fundamental relationship can open new vistas for human development, and mobilise new resources towards improving individual and population health. Knowledge about human rights will enable people to identify the issues for which the synergy of human rights and health is critical, and to act accordingly. We need to build on and strengthen the information and education available about human rights concepts and procedures. Stronger partnerships should be facilitated between those working on health and those working on human rights, besides effective information exchange through networking.

Appendix

Guidelines for Reporting on Article 12 of the ICESCR

1. Please supply information on the physical and mental health of your population, both in the aggregate and with respect to different groups within your society. How has the health situation changed over time with regard to these groups? In case your government has recently submitted reports on the health situation in your country to the Wood Health Organisation (WHO) you may wish to refer to the relevant parts of these reports rather than repeat the information here.
2. Please indicate whether your country has a national health policy. Please indicate whether a commitment to the WHO primary health care approach has been adopted as part of the health policy of your country. If so, what measures have been taken to implement primary health care?
3. Please indicate what percentage of your GNP as well as of your national and/or regional budget(s) spent on health. What percentage of those resources is allocated to primary health care? How does this compare with 5 years ago and 10 years ago?
4. Please provide, where available, indicators as defined by WHO, relating to the following issues:
   (a) Infant mortality rate (in addition to the national value, please provide the rate by sex, urban/rural division, and also, if possible, by socio-economic or ethnic group and geographical area. Please include national definitions of urban/rural and other subdivisions);
   (b) Population access to safe water (please disaggregate urban/rural);
   (c) Population access to adequate excrete disporal facilities (please disaggregate urban/rural);
   (d) Infants immunized against diphtheria, pertussis, tetanus, measles, poliomyelitis and tuberculosis (please disaggregate urban/rural and by sex);'

(e) Life expectancy (please disaggregate urban/rural, by socio-economic group and by sex);

(f) Proportion of the population having access to trained personnel for the treatment of common diseases and injuries, with regular supply of 20 essential drugs, within one hour's walk or travel;

(g) Proportion of pregnant women having access to trained personnel during pregnancy and proportion attended by such personnel for delivery. Please provide figures on the maternity mortality rate, both before and after childbirth.

(h) Proportion of infant having access to trained personnel for care. (Please provide breakdowns by urban/rural and socio-economic groups for indicators (f) to (h)).

5. Can it be discerned from the breakdown of the indicators employed in paragraph 4, or by other means, that there are any groups in your country whose health situation is significantly worse than that of the majority of the population? Please define these groups as precisely as possible and give specifics. Which geographical areas in your country if any, are worse off with regard to the health of their population?

(a) During the reporting period, have there been any changes in national policies, laws and practices negatively affecting the health situation of these groups or areas? If so, please describe these changes and their impact?

(b) Please indicate what measures are considered necessary by your government to improve the physical and mental health situation of such vulnerable and disadvantaged groups in such worse off areas.

(c) Please explain the policy measures your government has taken, to the maximum of available resources, to realise such improvement. Indicate time-related goals and benchmarks for measuring you achievement in this regard.

(d) Please describe the effect of these measures on the health of the vulnerable and disadvantaged groups or worse off areas under consideration, and report on the successes, problems and shortcomings of these measures.

(e) Please describe the measures taken by your government in order to reduce the stillbirth rate and infant mortality and to provide for the healthy development of the child.

(f) Please list the measures taken by your government to improve all aspects of environmental and industrial hygiene.

(g) Please describe the measures taken by your government to prevent, treat and control epidemic, endemic and occupational and other diseases.

(h) Please describe the measures taken by your government to assure to all medical service and medical attention in the event of sickness.

(i) Please describe the effect of the measures listed in subparagraphs (e) to (h) on the situation of the vulnerable and disadvantage groups in your society and in any worse-off areas. Report on difficulties and failures as well as on positive results.

6. Please indicate the measures taken by your government to ensure that the rising costs of health care for the elderly do not lead to infringements on these persons' right to health.

7. Please indicate what measures have been taken in your country to maximise community participation in the planning, organisation, operation and control of primary health care.

8. Please indicate what measures have been taken in your country to provide education concerning prevailing health problems and the measures of preventing and controlling them.

9. Please indicate the role of international assistance in the full realisation of the right enshrined in Article 12.

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PUBLIC HEALTH AND HUMAN RIGHTS

Dr. S. Venkatesh

Health issues recently have attracted major national and international attention. They have been perceived as significant aspects of economic development, environmental issues, and the rights of children all currently important international concerns. Globally, past experience brings up several instances of how healthcare policy may burden human rights. Similarly instances abound which demonstrate how human rights abuses have affected healthcare. An Analysis of this close relationship between public health and human rights makes a compelling case for a synergy between the two fields.

1.0 A synergy between Public Health and Human Rights

Human rights and public health share the common objective to promote and to protect the rights and well being of all individuals. They complement and mutually reinforce each other in any context. The World Health Organization has been spearheading a move based on a strong human rights approach in countries around the world to bring on board the millions of people left behind in the 20th century's health revolution. Public health programmes that respect human rights will encourage individuals and communities to trust, and co-operate with, public health authorities. The right to health is a basic human right, related to and dependent on many other human rights. Promotion of human rights, particularly among previously disenfranchised groups, increases their ability to protect their own health.

Public health objectives can best be accomplished by promoting health for all, with special emphasis on those who are vulnerable to threats to their physical, mental or social well being. From the human rights

perspective, this can best be accomplished by promoting and protecting the rights and dignity of everyone, with special emphasis on those discriminated against or whose rights are otherwise interfered with.

There is a need for a better understanding among lawmakers of the importance of a right to health; and, likewise for health professionals, to develop a greater awareness of the role of law in health. Health and human rights workers need to collaborate to bring about positive change. By setting forth the importance of a right to health, lawyers- whether or not they were familiar with the law of international human rights or the importance of health in the modern world- be enlightened as to the critical nature of this issue. At the same time, Health professionals should learn the importance of law to the practice of their profession and would become more sensitive to and aware of the consequences of what are, essentially, legal choices.

2.0 The Right to Health

The phrase “right to health” elicits a number of questions :

- What does the phrase mean?
- What are the implications of referring to a “right” in the context of health?
- What is the origin or source of such a right? Does it have any basis as a legal right?
- Does the term imply a right only to health care or are other rights implied also?
- How can a right to health be guaranteed, since no person or state authority can guarantee good health to anyone?

These questions touch on ethical and philosophical issues. Considered from the perspective of international law, the “enjoyment of the highest attainable standard of health” has been recognized as a “fundamental right” by the international community since the adoption of the Constitution of the World Health Organization (WHO) in 1946. Numerous international human rights treaties, many of which have been widely ratified also recognize the right. While all of these declarations and treaties contain provisions on rights and health, the language of each varies widely; it has become customary to refer to these provisions collectively as constituting the “right to health.”

The phrase “right to health” is used in the international human rights context to refer to

(i) the more lengthy and detailed provisions relating to health in the WHO Constitution and in legally binding human rights treaties and

(ii) to emphasize the social and ethical aspects of health care and health status.

The “right to health” is not a common expression in national legal systems. This term may also not be familiar to many in the field of medicine and public health. The philosophical literature contains a number of references to the right to health (and health care). The term is also becoming a familiar term in the context of international human rights.

Superficially, this right seems to presume that government or international organizations or individuals must guarantee a person's good health. This interpretation is obviously absurd and the phrase is not given such an interpretation in the context of human rights law. The term “right to health” is currently used in the context of human rights as shorthand, referring to the more detailed language contained in international treaties and to fundamental human rights principles.

The precise terminology “right to health,” without further explanation, is not used in most provisions of treaties relating to health. The following examples evidence extensive use of "right to health" in the sense outlined above by international, human rights organs, and legal scholars:

(i) The Committee on Economic, Social and Cultural Rights, which monitors the application of the Covenant on Economic, Social and Cultural Rights, held a "Day of General Discussion on the Right to Health" on 6 December 1993, focused on the meaning to be attributed to Article 12 of that Covenant which provides. "The States Parties to the present Covenant recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health."

(ii) A 1993 WHO publication entitled Human Rights in Relation to Women's Health contains a number of references to women's "right to health", and considers the meaning of that right by detailed reference to the WHO Constitution, the Economic Covenant, the Convention on the Elimination of All Forms of Discrimination against Women, and the Convention on the Right of the Child.

(iii) In 1989, the Pan-American Health Organization (PAHO) published a lengthy study on *The Right to Health in the Americas*, edited by two lawyers with extensive experience in health law. In support of the existence of the right to health as a legal right in international law, they cite detailed provisions of the WHO Constitution and International human rights treaties. Judge Thomas Buergenthal in his article on "International Human Rights Law and Institutions" referred on a number of occasions to the right to health as dealt with in various international human rights instruments.

(iv) In 1978, the Hague Academy of International Law and the United Nations University organized a multi-disciplinary workshop on *The Right to Health as a Human Right* with participants from the fields of law, medicine, economics and international organizations. It established the phrase "right to health" within the context of international human rights and drew attention to sources of the rights.

Prof. Theo C. Van Boven, then Director of the United Nations Division of Human Rights and subsequently Professor of International Law at Limburg University, Netherlands used the term “right to health” to refer to provisions in the founding documents of international human rights law such as the Universal Declaration of Human Rights and the Economic Covenant and a number of other declarations. According to Dr. Van Boven, three aspects of the right to health have been enshrined in the international instruments on human rights: the declaration of the right to health as a basic human right; the prescription of standards aimed at meeting the health needs of specific groups of persons; and the prescription of ways and means for implementing the right to health.

The use of shorthand expressions to express more complete concepts is common in human rights, civil rights, and fundamental rights. Reference may be made in fundamental rights literature to the “right to property”; the acquired meaning is not that everyone has the right to demand some property, but that no one may be arbitrarily deprived of his or her property. The term's meaning has developed through long usage and application in legal systems. This is in keeping with the evolution of the scope of concepts like “due process,” “natural justice,” “equal protection,” and of rights to freedom of expression or freedom of association. At first these terms were not self-evident, but through judicial, legislative and scholarly use in many countries they have acquired a generally recognised meaning.

The Science and Human Rights Program of the American Association for the Advancement of Science (AAAS) explored the implications of recognising a right to health care. Through a series of consultations with experts in medicine, law, philosophy, economics and ethics, the programme has made a major contribution to understanding the limited right to health care. Many of the programme's proposals explore issues essential as well for recognition of the right to health.

Prof. Ruth Roemer, in her article on “The Right to Health Care” in PAHO's Right to Health in the Americas, endorses the opinion that the phrase “right to health” conveys an absurdity; the guarantee of perfect health. However, she goes on to give an extensive definition to the right to health care, considering it to encompass, “protective environmental services, prevention and health promotion and therapeutic services as well as related actions in sanitation, environmental engineering, housing and social welfare.” Such an extensive definition seems contrary to common understanding of the phrase “right to health care,” normally taken to mean only the provision of medical services. Her usage illustrates, however, the negative reaction of many to the phrase “right to health” a reaction that will only lessen as the term's use and implications become more familiar.

The authors of the PAHO study felt that the phrase 'a *right to health*' may be incomplete and conceptually misleading. They suggested that a more correct phraseology would be a *right to health protection*, including two components, a *right to health care* and a *right to healthy conditions.* However, they

opted for the term “right to health” in their book's title for “the sake of convenience and to conform to standard usage in human rights texts.”

The term “right to health” is, thus, used for convenience and has become standard in the field of human rights, but it is not the precise language of the legal instruments. Though it has its critics, the phrase has now attained generalised usage in human rights literature. The “right to health” needs to be contrasted with the terms “right to health care” and “right to health protection.”

3.0 Source of the Right to Health in Human Rights Law

3.1 International Provisions

International human rights law has evolved since World War II to include economic and social rights. A number of international treaties and declarations use the language of rights in referring to health issues. Although the 1948 Universal Declaration of Human Rights is not a treaty, legal scholars now consider most of its provisions as constituting customary international law. Article 25 of the Declaration reads:

> Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing and medical care and the right to security in the event of ...sicknesss, disability...”

The Preamble to the WHO Constitution holds the enjoyment of the highest attainable standard of health as one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social conditions. This has inspired the provisions of several treaties.

International Covenant on Economic, Social and Cultural Rights

> Article 12(I): The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.

Convention of the Rights of the Child

> Article 24(1): States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health.

African Charter on Human and Peoples' Rights

> Article 16: Every individual shall have the right to enjoy the best attainable state of physical and mental health.

The important Alma Ata Declaration adopted at the International Conference on Primary Health Care organised by WHO and UNICEF in 1978, also used similar language:

> The Conference strongly reaffirms that health, which is a state of complete physical, mental and social well being, and not merely the absence of disease or infirmity, is a fundamental human Right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realizaiton requires the action of many other social and economic sectors in addition to the health sector.

The use of the term “highest attainable standard” presupposes a reasonable, not an absolute, standard. Also, the language of the WHO Constitution emphasises an essential element implicit in the shorter phrase “right to health” by referring to non-discrimination on the grounds of race, religion, political belief, economic, or social conditions. Emphasis on non-discrimination in relation to health is reiterated in the following discrimination conventions.

Convention on the Elimination of All Forms of Racial Discrimination

> Article 5(e) (iv): States Parties undertake to prohibit and eliminate racial discrimination in the enjoyment of “the right to public health, medical care, social security and social services.”

Convention on the Elimination of All Forms of Discrimination Against Women

Article II(I) (f): States Parties shall take all appropriate measures to eliminate discrimination against women in the enjoyment of "the right to protection of health and to safety in working conditions, including the safeguarding of the function of reproduction."

Article 12: All appropriate measures should be taken by States Parties to eliminate discrimination against women "In the field or health care in order to ensure on a basis of equality of men and women, access to health care services, including those related to family planning."

The Addition Protocol of the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador) uses the precise language "right to health." Article 10, entitled "Right to Health," reads:

"(1) Everyone shall have the right to health, understood to mean the enjoyment of the highest level of physical, mental and social well-being. (2) In order to ensure the exercise of the right to health, the States Parties agree to recognize health as a public good..."

The American Declaration of the Rights and Duties of Man contains the following similar language:

Article XI: Every person has the right to the preservation of his health through sanitary and social measures relating to food, clothing, housing and medical care, to the extent permitted by public and community resources.

These provision employ a wide variety of language: some use the terminology "right to protection of health" or "right to preservation of health"; others intersperse additional language between the terminology of "right" and "health". Naturally, when a particular treaty or declaration is considered for application in a concrete case, the specific language of the provision involved should be referred to, rather than the more general concept of a right to health.

Although enunciated in international instruments, the scope and meaning of the right to health as a *human right is* only gradually being clarified. There have been few serious efforts by international organizations or scholars to consider the scope of the right to health. Rights proclaimed in national constitutions and in international legal instruments are expressed in succinct language whose meaning is rarely self-evident. The content and implications of a right develop over time through judicial and administrative interpretation in and application to concrete cases, as well as through scholarly analyses.

3.2 National provisions

The PAHO study reports that, in the American hemisphere, 20 of the constitutions of the civil and socialist law countries include a statement on the right to health and/or the duty of the State in regard to the health of the nation. A right to health is proclaimed in five constitutions; a right to health protection is found in eight others. All the socialist law countries proclaim both a right and duty, of the civil law countries, only Argentina, Colombia and Costa Rica do not have a direct reference to the duty of the State in regard to health. None of the common law countries in that Hemisphere contains a reference to the right to health. The United States Constitution, which influenced the constitutional development in these countries, does not contain references to social rights.

Referring explicity to the right to health, the 1987 Philippine Constitution provides that the State shall

- protect and promote the right to health of the people and instill health consciousness among them (Article II, sec. 15)
- protect and advance the right of the people to a balanced and healthful ecology in accordance with the rhythm and harmony of nature (Article II, sec. 16)

Although they do not use the terminology. "right to health," the French and Japanese Constitutions contain provisions relevant to the right. Specifically, the Preamble to the 1946 French Constitution, reaffirmed in the 1959 Constitution, provides that the State "guarantees to all and notably to the child, the mother and the aged worker, health protection, material security, rest and leisure." Article 25 of the 1946

Japanese Constitution provides “In all spheres, the State shall use its endeavours for the promotion and extension of social welfare and security and of public health.”

Prof. Ruth Roemer writing in PAHO's the *Right to Health in the Americas* has pointed out that the principal function of a constitutional provision for the right to health care is usually symbolic. It sets forth the intention of the government to protect the health of its citizens. A statement of national policy alone is not sufficient to assure entitlement to health care; the right must be developed through specific statutes, programmes and services. But setting forth the right to health care in a constitution serves to inform the people that protection of their health is official policy of the government and is reflected in the basic law of the land.

In interpreting civil and political rights, international organs applying human rights law have benefited from the experience of national legal systems. However, national legal systems do not have a large body of experience in interpreting and implementing the economic and social rights such as the right to food and the right to housing recognised in international treaties. The right to health shares the same fate. Economic and social rights, including the right to health, are only beginning to be clarified by monitoring committees created by international human rights treaties.

4.0 Relevance of Rights Discourse to Health Issues

What do human rights have to do with health issues? What does rights discourse add to consideration of complex technical, economic, and practical issues involved in health care and status? The concept of a right to health as a human right emphasises social and ethical aspects of health care and health status, as these aspects are embodied in principles underlying all international human rights. A rights- based perspective on health focuses on the following elements of all rights and applying them to health status issues:

(i) Conceptualising something as a right emphasises its exceptional importance as a social or public goal. (Rights as “trumps.”)
(ii) Rights concepts focus on the dignity of persons.
(iii) Equality or non-discrimination is a fundamental principle of human rights.
(iv) Participation of individuals and groups in issues affecting them is an essential aspect of human rights.
(v) The concept of rights implies entitlement.
(vi) Rights are interdependent.
(vii) Rights are almost never absolute and may be limited, but such limitations should be subject to strict scrutiny.

4.1 Rights as trumps

The use of rights language vis-a-vis social goals confers a special status on those goals. As Ronald Dworkin puts it, categorising something as a right means that the right “trumps” many other claims or goods. A special importance, status, priority, is implied in categorising something as a right. Therefore, the use of rights language in connection with health issues emphasises the importance of health care and health status. To speak of a right to health does not mean that right should always take priority over all other goods, claims, or other rights; but it does emphasise that health issues are of special importance given the impact of health on the life and survival of individuals.

In a seminal study, Henry Shue defines “basic rights” as those necessary for the enjoyment of all other rights. For example, he regards the right to physical security and the right to subsistence as basic rights from which follow ancillary rights, such as those to unpolluted air and water, and to minimal preventive health care. Conceptualising health status in terms of rights underscores health as a social good and not solely a medical, technical, or economic problem.

4.2 Dignity as the Foundation of Human Rights

The concept of rights grows out of a perception of the inherent dignity of every human being. Thus, use of rights language in connection with health emphasises that the dignity of each person must be central in all aspects of health, including health care, medical experimentation, and limitations on freedom in the name of health. The focus must be on the dignity of the individual rather than the collective good. The utilitarian principle is rejected by a rights approach. The greater good of the greater number may not override individual dignity. The dignity of all must be respected in particular, the dignity of society's most vulnerable elements: the poor, racial and ethnic minorities, disabled persons, the mentally handicapped.

4.3 The Equality or Non-Discrimination Principle

Equality or non-discrimination is a fundamental principle of human rights law, and prohibition of discrimination is a leitmotif running through all of international human rights law. The major international covenants on human rights contain non-discrimination clauses. Specific international treaties have been adopted prohibiting discrimination on the basis of sex or race. The rights approach, with its emphasis on non-discrimination (including on the grounds of limited economic resources) implies rejection of a solely market-based approach to the social good of health care and health status. Cost-containment and cost-benefit analyses in the health care allocation remain important but need not be determinative in matters of social goals relating to health.

The Alma-Ata Declaration on Primary Health Care finds the existing gross inequality in the health status of the people particularly between developed and developing countries as well as within countries to be politically, socially and economically unacceptable and is, therefore, of common concern to all countries.

Often equality and prohibition of discrimination is violated in many aspects of health status. In most countries, the health status of racial or ethnic minorities is far worse than that of the majority population. Environmental racism (the dumping of environmental wastes or governmental ignoring of pollution in areas inhabited by the poor) has been documented. Extensive discrimination against women in health care is coming to notice. Dr. Jonathan Mann has pointed out that societal discrimination and lack of respect for fundamental human rights directly affect the health status of the population. He suggests that the thinking that led to the Universal Declaration of Human Rights and its list of fundamental and inalienable rights may provide a more useful entry point into a thorough consideration of the “conditions in which people can be healthy” than the approaches traditionally used in medicine and public health.

4.4 Participation

Participation of individuals and groups in matters that affect them is essential to protection of all human rights. Democracy and human rights are frequently linked in current rights discourse and democracy means more than merely voting: it requires provision of information and informed participation. WHO has recognised the importance of participation in health matters. The Declaration of Alma-Ata on Primary Health Care states, “The people have the right and duty to participate individually and collectively in the planning and implementation of their health care.”

4.5 Entitlement

The concept of a right implies entitlement to the subject of that right. The Final Act of the Conference on Security and Cooperation in Europe (better known as the Helsinki Accords) succinctly provides that individuals are entitled to “know and act on their rights.” Judge Buergenthal has written that the “recognition of the right to health as an internationally guaranteed right... gives legal and political legitimacy to the claims for its enjoyment.” This does not necessarily imply resort to lawsuits, which may not always be the best means of asserting rights. Indeed, in some legal systems, social rights are considered non-justiciable. Other measures may be resorted to, such as administrative agencies or tribunals or creation of the role of ombudsman to respond to citizens' complaints.

A rights approach offers a normative vocabulary that facilitates both the framing of claims and the identification of the right holder. This means that the addressees of the rights or duty-bearers (governments)

have the duty to provide the entitlement, not to society in general, but to each member. This standing has very important implications for efforts to seek redress in cases where the entitlement is not provided or the right violated.

4.6 Interdependence of Human Rights

Human rights are interdependent. Particular rights may depend on other rights for their fulfilment. All human rights and fundamental freedoms are indivisible and interdependent. Therefore, the right to health cannot be effectively protected without respect for other recognised rights. These include, in particular, both prohibition of discrimination, and the right of persons to participate in decisions affecting them.

4.7 Limitations on Rights

Rights are generally not absolute in national or international legal systems and may be subject to limitations on certain grounds. Under the International Covenant on Civil and Political Rights, *protection of public health* is a permissible ground for limiting the rights to liberty of movement, freedom of religion, freedom of expression and the right to freedom of association. Various countries often impose quarantines and limitations of freedom of movement for public health reasons. However, such limitations on rights must be scrutinised to determine whether they are truly necessary. For instance, it is unjustified, on health ground, to impose quarantines, job discrimination, and restrictions on freedom of movement on persons who are HIV positive.

4.8 Implications of Human Rights Discourse in Relation to health Issues

The concept of a right to health implies that fundamental principles of human rights, dignity, non-discrimination, participation, and justice are relevant to issues of health care and health status. The meaning to be ascribed to the right to health, as well as the obligations of statutes to ensure that right, needs careful consideration. This involves reference to provisions of international instruments, WHO's work in this area, efforts of monitoring committees, scholarly literature, and public health approaches.

5.0 Governmental Obligations and the Right to Health

What obligations to promote and protect the right to health are incurred by states through ratification of treaties? As the Scottish philosopher Tom Campbell wrote, “Working out the specific implications of general statements of human rights is a necessary move if the rhetoric of human rights is to have a major impact on the resolution of social problems.”

In 1993, the United Nations' Committee on Economic, Social and Cultural Rights (henceforth “ESC Committee”) which monitors implementation of the Economic Covenant, invited interested organizations and individuals to present their views on the scope of, and obligations relating to, Article 12 of the Economic Covenant. This article provides that States Parties “recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.” The hearing on the Right to Health was one of the rare (possibly unique) occasions on which this question has been considered by a UN organ. Presentations by representatives of the WHO, and some 20 organizations and individuals emphasised the following aspects:

(i) Article 12's listing of the steps to be taken by States Parties to realise the right to health.

(ii) The importance of referring to specific goals and indicators developed by WHO, particularly relating to Primary Health Care and the Goal of Health for All by the Year 2000.

(iii) Fundamental principles common to respect for all human rights: dignity, non-discrimination, participation, entitlement. In this regard, several speakers referred to the necessity of special concern for the health needs of vulnerable populations.

As with all other social and economic rights mentioned in the Covenant, the obligation of states under the Covenant to implement the right to health is a progressive obligation. A state is not required immediately and fully to implement the right, but only to “achieve progressively the full realisation of the

right" (Article 2). However, the states parties are required by Article 2 to "take steps" to achieve the right. Those steps necessary to achieve the full realisation of the right to health are listed in the second paragraph of Article 12:

a. the provision for the reduction of the still-birth rate and of infant mortality and for the healthy development of the child;
b. the improvement of all aspects of environmental and industrial hygiene;
c. the prevention, treatment and control of epidemic, endemic, occupational and other diseases; and
d. the creation of conditions which would assure to all medical service and medical attention in the event of sickness.

While these steps provide a starting point for understanding the obligation to respect the right to health, their generality makes it difficult to determine specific obligations involved. As pointed out by a number of speakers at the ESC Committee's hearing on the Right to Health, it is appropriate to have recourse to the work of WHO to determine more specific means of reducing infant mortality, improving environmental and industrial hygiene and preventing epidemic and other diseases as well as creating conditions to assure medical care. Several presenters at the hearing emphasised the importance of such environmental fundamentals as clean water and sewage disposal.

WHO has elaborated in considerable detail the means that could be used most effectively by developing countries to achieve the "highest attainable standard" of health. WHO's Health for All by the year 2000 (HFA/2000) had as its goal the most concrete and useful definition of the programmatic social right to health protection, and succinctly expressed the common view of the responsibility of the state for the health of its people.

The essential aspects of the Primary Health Care approach described in the Alma-Ata Declaration of 1978 include:

(i) an emphasis on preventive health measures (immunization, family planning) more than on curative measures;

(ii) the importance of participation of individuals and groups in the planning and implementation of health care;

(iii) an emphasis on maternal and child health care;

(iv) the importance of education concerning health problems;

(v) high priority to be given in provision of health care to vulnerable and high risk groups, such as women, children, underprivileged elements of society;

(vi) equal access of individuals and families to health care at a cost the community can afford.

This approach emphasises many aspects fundamental to any rights perspective: participation, equality, and concern for society's most vulnerable members. WHO receives indications from member states of their own implementation evaluation. The ESC Committee, responsible for international monitoring of the right to health provisions of the Economic Covenant, has found useful the guidance provided by WHO goals and indicators.

Another case drawing on application of the right to health occurred in 1985. That year, the inter-American Commission on Human rights found a violation by Brazil of the American Declaration of the Rights and Duties of Man's provision on the right to preservation of health. The Commission found that the Brazilian Government had failed to take timely and effective measures on behalf of the Yanomami Indians and had thereby violated, *inter alia,* Article XI of the American Declaration of the Rights and Duties of Man providing that "every person has the right to preservation of his health through sanitary and social measures relating to... medical care, to the extent permitted by public and community resources."

The obligation of states to protect and promote economic and social rights involves three aspects: (1) the obligation to *respect* not to violate the right directly by its actions; (2) the obligation to *protect* preventing others from violating the right; (3) the obligation to *fulfil* the necessity for the state to take measures

necessary to ensure the right. In applying these obligations, it would seem that the state is obliged to do nothing directly to injure health, such as committing torture by state agents.

The obligation to respect can conceivably be applied to use of nuclear weapons, given their devastating health effects on the population. The obligation to *protect* preventing others from violating the right might be considered as obligating the state to control tobacco companies' promotion of tobacco use. Finally, the obligation to *fulfil* might be considered as requiring the state to adopt primary health care with all that it implies, including emphasis on preventive rather than curative measures.

6.0 Economic Resources and the Right to Health

One of the common assertions relating to implementation of the right to health is the inability of poor countries to provide an adequate level of health care or to provide the economic development which is necessary for an adequate health system. Obstacles to improving health within states are often misallocation of resources, inequity in health care, and inefficiency. All states have obligations under international law with regard to the right to health and that measures that are not costly can be taken to improve health status.

i) All ratifying states have obligations under Article 12 of the Economic Covenant regardless of their degree of economic development.

Article 2(1) of the Economic Covenant, above, provides that each State Party undertakes to take steps for progressive realization of the rights enshrined in the Covenant "to the maximum of its available resources." This phrase has sometimes been interpreted erroneously to imply that states with very limited resources have no obligations under the Covenant. All countries, however, have at least some "available resources" even if severely limited in comparison with other countries. Hence, under the Covenant all ratifying states are oligated to respect the right to health, regardless of their level of economic development. This Covenant also refers to the possibility of states calling upon international assistance to achieve respect for the right to health.

In 1986, a group of distinguished experts in international law adopted "The Limburg Principles on the Implementation of the International Covenant on Economic, Social and Cultural Rights" at a meeting convened by the International Commission of Jurists, the Faculty of Law of the University of Limburg and the Urban Morgan Institute of Human Rights, University of Cincinnati. The Principles specify that "The obligation of progressive achievement exists independently of the increase in resources; it requires effective use of resources available." (Article 23) They also assert that states parties are obligated "regardless of the level of economic development, to ensure respect for minimum subsistence rights for all" (Article 25) and that "resources available" refers to "both the resources within a State and those available from the international community through international cooperation and assistance" (Article 26). Of course, the specific obligations of a country will vary depending on resources.

ii) Improved health contributes to economic growth.

The World Bank devoted its 1993 Report on World Development (*Investing in Health)* to the importance of health issues in economic development. The Report concluded that:

> Improved health contributes to economic growth in four ways: it reduces production losses caused by worker illness; it permits the use of natural resources that had been totally or nearly inaccessible because of disease; it increases the enrollment of children in school and makes them better able to learn, and it frees for alternative uses resources that would otherwise have to be spent on treating illness.

Investing in health, therefore, is a means for a developing country to promote its economic growth, and justifies the priority given to it. India, as a developing country, should therefore be concerned with placing importance on health issues because, *inter alia,* it makes sound economic sense.

iii) There is no automatic link between resources and health status.

While promoting health contributes to a country's economic development, a lack of resources often correlates with poor national health. The health of citizens in low-or middle-income countries is, in general, far worse than that in high-income countries. Child mortality rates are roughly 10 times higher than those in the established market economies, life expectancy is far lower, death rates among children are far higher. Facts and figures on the extent of malnutrition and health problems in many developing countries are staggering.

Nevertheless, the correlation between a lack of resources and poor national health does not always exist. Certain low- and middle-income countries show considerably better health statistics than other developing countries. Thus, citizens of Sri Lanka in 1991 had a life expectancy at birth of 71 years nearly the same as that for many high-income countries and much higher than the average for other low-income countries. Citizens of China had a life expectancy at birth of 69 years also a figure much higher than that of other low-income countries. So, factors other than income level are significant in terms of health status. WHO has pointed out that "merely to increase incomes will not guarantee health. While there is a close relationship between health and income at the very lowest income levels, as incomes begin to rise health hazards associated with economic development begin to emerge."

iv) Cost-effective means of promoting health.

Given the shortage of resources in developing countries, special attention should be focused on the most effective use of resources to increase the level of health. WHO, in its Global Strategy for Health for All by the Year 2000, provided guiding principles that a State should follow to achieve its most cost effective means of improving health status: (1) emphasis on preventive rather than curative, health measures and (2) adoption of primary health care as the basic orientation of health policy. Failure to do so, according to WHO, constitutes misallocation of health resources. WHO and public health experts enumerated some practical and cost-effective means for promoting health. These include:

(i) emphasis on preventive rather than curative measures;
(ii) promotion of breast-feeding;
(iii) discouragement of tobacco use.

In a given population, many health expenditures lead to relatively little increase in health status of the population. WHO has reported most conventional health care systems as becoming increasingly complex and costly and of doubtful social relevance. The dictates of medical technology and the misguided efforts of a medical industry providing medical consumer goods to society have distorted these. The World Bank has stressed the need for governments in developing countries to spend far less on average, about 50 percent less than they now do on less cost-effective interventions and instead double or triple spending on basic public health programmes such as immunizations and AIDS prevention and on essential clinical service.

7.1 Nutrition

Nutrition is a cornerstone that influences and defines the health of all people - may they be rich or poor. It paves the way for our aspirations towards realising our fullest potential as individuals and societies. Malnutrition on the other hand, makes us all more vulnerable to disease and premature death. There is a need to reaffirm the unequivocal assertion: proper nutrition and health are fundamental human rights. We must ensure that our values and our vision are anchored in human rights law-only then can they become reality for all people. Ultimately, health and sustainable human development are equity issues.

Poverty is a major cause and consequence of ill- health world-wide. The vicious cycle of poverty, hunger and malnutrition have, in the past, compromised health and wreaked havoc on the socio-economic development of nations, and even continents. Nearly 30% of humanity, especially those in developing countries—infants, children, adolescents, adults, and older persons—bear this triple burden. Resources allocated to preventing and eliminating disease will be effective only if we successfully address the

underlying causes of malnutrition and their consequences. This is the "gold standard": nutrition, health and human rights. It makes for good science and sense-from both economic and ethical viewpoints. We have the means to achieve it through effective partnerships.

Promotion of breast-feeding is one of the most cost-effective means of increasing the health status of a population. WHO has devoted a great amount of attention to the promotion of breast-feeding. Working with non-governmental organizations and scientific and medical organizations, WHO developed and promoted the International Code of Marketing of Breast-Milk Substitutes. This restricts certain marketing practices used to sell breast-milk substitutes in order to promote breast-feeding.

7.2 TOBACCO CONTROL

Smoking cessation is another cost-effective means of promoting health, according to WHO and public health experts. It has been estimated that if current tobacco consumption trends continue, about 150 million children alive today will die of tobacco-induced diseases. Evidence overwhelmingly suggests that tobacco smoking is the major cause of cardiovascular diseases and lung cancer, and is an important cause of cancers of the oral cavity, upper respiratory and digestive tracts, and bladder. Smoking has been reported as a cause of a low birth weight of infants.

Measures to discourage tobacco use could include restriction on advertising of tobacco products; taxes on sales of tobacco products; and educational programmes on detrimental effects of tobacco consumption. Growth of tobacco should be discouraged and, if possible, adverse economic consequences be compensated by economic measures (in the case of developing countries, possibly by assistance from international organizations). It is a matter of concern that certain high-income countries, which adopt measures discouraging use of tobacco in their own countries, encourage exportation of tobacco to other countries, including developing countries, through export subsidies. This constitutes an egregious violation of the right to health.

These cost-effective measures are only a few of those that should be taken by all countries to limit the cost of improved health care and health status. Even countries with limited resources could take these measures to fulfil their obligation to respect the right to health.

8.0 Right to Health - Constitutional provisions & the role of Courts in India

The Constitutional directives contained in articles 39(e)(f), 42 and 47 in part IV of the Constitution of India cast the obligation of the state to ensure the creation and the sustaining of conditions congenial to good health. The state has to direct its policy towards securing that health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age or strength (article 39(e) and that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that children and youth are protected against exploitation and against moral and material abandonment. Article 42 requires the State to make provisions for just and humane conditions of work and for maternity benefit. The State has the primary duty to endeavour to raise the level of nutrition and standard of living of its people and improvement of public health and to bring about prohibition of the consumption, except for medicinal purposes, of intoxicating drinks and of drugs which are injurious to health (Article 47). Article 48A also makes protection and improvement of environment as one of the cardinal duties of the State.

Under entry six of the state list contained in the Seventh Schedule to the Constitution, the state legislature is empowered to make laws with respect to public health and sanitation, hospitals and dispensaries. By entries 23, 26 and 29 contained in the Concurrent List of the Seventh Schedule, both the centre and the states have power to legislate in the matters of social security and social insurance, medical professions and prevention of the extension from one state to another of infections or contagious diseases or pests affecting man, animal or plants.

Article 21 guarantees protection of life and personal liberty by providing that no person shall be deprived of his life and personal liberty, except according to the procedure established by law. With liberal

interpretation of the words 'life' and 'liberty', article 21 has now come to be invoked almost as a residuary right. Various public interest petitions have been founded on this provision. Prominent among these are the petitions for redress against failure to provide immediate medical aid to injured persons, against starvation deaths, against health hazards due to pollution, against health hazards from harmful drugs, against inhuman conditions in after-care home and for providing special treatment to children in jail.

The Supreme Court has been giving a positive thrust to the nature and content of this rights by imposing a positive obligation upon the State to take effective steps for ensuring to the individual a better enjoyment of his/her life. It has held that the right to live with human dignity enshrined in article 21 derives its life and breath from the directive principles of state policy particularly article 39(e) and (f), 41 and 42 and would, therefore, include a protection of health as envisaged in the directives.

This expanded meaning of the right to life is wholly justified as without health of a person being protected and his well being looked after, it would be impossible for him/her to enjoy other fundamental rights such as rights to freedom of speech or expression, to move freely throughout the territory of India, to practice any profession or carrying on any trade, occupation or business, to form association, guaranteed by article 9 in a positive manner. Without a guarantee of health and well being, most of these rights cannot be exercised fully. For making other rights meaningful and effective, right to a healthy life is the basis underlying the constitutional guarantees. The Courts have provided redressal by meaningful and just interpretation to the right to life and commanding enforcement of the duties of a welfare state.

The State has an obligation under Article 21 to safeguard the right to life of every person, preservation of human life being of paramount importance. The Supreme Court has, in the case of *Parmanand Katara v. Union of India* (AIR 1989 SC 2039), held that whether the patient be an innocent person or be a criminal liable to punishment under the law, it is the obligation of those who are in charge of the health of the community to preserve life so that innocent may be protected and the guilty may be punished. A government hospital doctor positioned to meet this state obligation is duty bound to extend assistance for preserving life. Every doctor, whether of government hospital or otherwise, has a professional obligation to extend his services with due expertise and care for protecting life. It has been held that this obligation is total, absolute and paramount, and laws of procedure, whether in statutes or otherwise, which would interfere with the discharge of this obligation cannot be sustained and must, therefore, give way. In this case, it was held that a doctor does not contravene the law of the land by proceeding to treat the injured victim on his appearance before him either by himself or being carried by others. The Court also directed that wide publicity be given to its decision to ensure that every doctor, wherever he be in the territory of India, should forthwith be aware of this position.

In the case of *P.B. Khet Mazdoor Samity vs. Union of India* (AIR 1996 SC 2426), the Supreme Court held that the failure on the part of a government hospital to provide timely medical treatment to a person in need of such treatment results in violation of the injured victim's right to life guaranteed by article 21. In a welfare state, provision of adequate medical facilities for the people is an essential part of the obligations undertaken by the government. The government discharges this obligation by running hospitals and health centres which provide medical care to the person seeking to avail of these facilities. These government hospitals and the medical officers engaged therein are duty- bound to extend medical assistance for preserving human life. In this case, the Court exercising its powers under Article 32, awarded a compensation of Rs. 25,000 to Hakim Sheikh who fell from a train and suffered severe head injuries but was refused treatment from as many as seven state hospitals on the ground of non-availability of bed, though it was an emergency case.

Article 242 provides that the legislature of a state made by law, endow the municipalities with such power and authority as may be necessary to enable them to function as institutions of self-government and provide with respect to performance of functions and implementation of schemes as may be entrusted to them including those in relation to the maters listed in the Twelfth Schedule to the Constitution (which include at item 6, 'public health, sanitation conservancy and solid waste management). Article 243-G read with the Eleventh Schedule (item 23) makes similar provisions in respect of panchayats.

Various municipal laws, such as the Gujarat Municipalities Act, 1963 and the Bombay Provisional Municipal Corporation Act, 1949, prescribe duties of such local authorities in the sphere of public health and sanitation. These duties include establishment and maintenance of dispensaries, expansion of health services, regulating or abating offensive or dangerous trades or practices, providing a sufficient supply of wholesome water, public vaccination, cleansing public places, and removing noxious substances, disposal of night-soil and rubbish, providing special medical aid and accommodation for the sick in the time of dangerous diseases, and taking measures to prevent the outbreak of diseases.

The Supreme Court of India has played a decisive role in realisation of the right to health by recognising it as a part of the fundamental right to life and issuing suitable directions to the state authorities for the discharge of their duties. In CESC Ltd. Vs.S.C. Bose (1992) (1 SCC 441), the Court held that the term 'health' implies more than the mere absence of sickness. The Court recognised that maintenance of health is a most imperative constitutional goal, whose realisation requires interaction of many social and economic factors. It held that right to health and medical care is a fundamental right under article 21 read with articles 39(c), 41 and 43 of the Constitution to make the life of workmen meaningful. In *Kirloskar Bros. Ltd. Vs. ESI Corporation* (1996) (2 SCC 682), the Supreme Court held that health insurance for workmen, while in service or after retirement, was a fundamental right and even private industries are enjoined to provide health insurance to workmen.

In Rakesh Chandra v. State of Bihar (AIR 1989 SC 348) (also *S.R. Kapoor v. Union of India,* AIR SC 752) which concerned the *Ranchi Mansik Arogyashala* in Kanke, Bihar, the Supreme Court held that running of the mental hospital was in discharge of the State's obligation to the citizens, and the fact that a huge amount was required to be spent by the public exchequer was not of any consequence. It was directed that the quality of the hospital should improve and the patient should have the benefit of modern scientific treatment, having regard to the fact that the method of care and attention for the mentally handicapped had undergone a sea change.

In *A. S. Mittal v. State of U.P.* (AIR 1989 SC 1570), the eyes of 84 patients operated in an 'eye camp' were irreversibly damaged, owing to post-operative E. coli infection of the intra-ocular cavity of infection the operated eyes, form contaminated 'normal saline' solution used in the eyes at the time of surgery. The Court reviewed the existing guidelines prescribing norms and conditions for conducting eye camps catering to patient generally drawn from the poor and less affluent sections of the society and directed the government to incorporate the suggestions made by a sub-committee of the Indian Medical Council in its revised guidelines. The Court observed, “owing to a general air of cynical irreverence toward values that has, unfortunately developed and to the mood of complacence with the continuing deterioration of standards, the very concept of standards and the imperatives of their observations tend to be impaired.”

In *Dr. L.B. Joshi Vs. Dr. T.B. Godbole* (AIR 1969 SC 128), the Supreme Court held that a person who holds himself ready to give medical advice and treatment impliedly undertakes that he is possessed of skill and knowledge for the purpose. He owes a duty of care to the patient in deciding whether to undertake the case and and what treatment to give. A breach of such duty gives a right of action to the patient for negligence of the doctor. In Indian Medical Association v. V.P. Shantha (1995) (6 SCC 651) the Supreme Court held that service rendered to a patient by a medical practitioner (except where the doctor renders service free-of charge to every patient or under a contract of personal service), by way of consultation, diagnosis and treatment, falls within the ambit of 'service' as defined in section 2(1)(0) of the Consumer Protection Act, 1986.

In a public interest litigation, *Common Cause v. Union of India* (AIR 1996 SC 929), serious deficiencies and shortcomings in the matter of collection, storage and supply of blood through various blood centres were highlighted before the Supreme Court. The Supreme Court constituted a Committee to examine the various draft schemes suggested by the petitioner and the Union of India. After reviewing the report of the Court Committee, and that of the Experts Committee set up by the Indian Red Cross Society, the Court held that government should take suitable action as per the immediate and long-term implementation plans suggested by the Court Committee.

The nation's children are a supremely important asset. In *Sheela Barse (II) v. Union of India* (1986) (3 SCC 632), the Supreme Court held that their nurture and solicitude are our responsibility. It directed that children's programme should find a prominent place in our national plans for the development of human resources, so that children grow to become robust citizens, physically fit, mentally alert and morally healthy, endowed with skill and motivations needed by the society.

9.0 Conclusion

The concept of a "right to health" has much to offer in the protection and preservation of the health of the world's citizens. Despite some gains, the binding legal obligations in relation to health have not been sufficiently recognised and emphasised. The World Bank had in its 1993 World Development Report, *Investing in Health,* emphasised the appalling discrepancy between health status of rich and poor countries, and underscored the need for attention to health status and health care in matters of economic development. The Report, however, makes no reference to legal obligations concerning the promotion of health. Some of the reasons for this failure may be: lack of clarity in the meaning of the obligations, paucity of national and international decisions defining the right, and the relative newness of the concept of the right to health. Nevertheless, the legal obligations need to be recognised and an effort made to spell out their implications.

Universally- recognised human right standards should guide policy-makers in formulating the direction and content of public health policy and form an integral part of all aspects of national and local responses to public health challenges. There is growing consensus that for a health programme to be successful, it should have a broadly based, inclusive response. Another essential component of comprehensive response should be the facilitation and creation of a supportive legal and ethical environment, which is protective of human rights. This requires measures to ensure that Governments - both at the Centre and the States, communities and individuals respect human rights and human dignity and act in a spirit of tolerance, compassion and solidarity.

WHO has been stepping up its advice in health sector reform. In doing so, the organization has been drawing extensively upon the key values enshrined in the Universal Declaration of Human Rights. The Regional Conference on Public Health in the South East Asia region in the 21st Century held in Calcutta in November 1999 had also emphasised the need for human rights approach for Public Health policies and programmes. Health security is a challenge that encompasses many of the rights enlisted in the Declaration. It means universal access to adequate health care, access to education and information, the right to food in sufficient quantity and of good quality, but also the right to decent housing and to live and work in an environment where known health risks are controlled.

While formulating public health policies, careful consideration should be given to the goals of the policy, whether the means adopted will achieve those goals, and whether intended health benefits outweigh financial and human rights burdens. In practice, it has been seen that public health policies are seldom crafted with attention to their impact on human rights or the norms of international human rights law. Implementing public health policies without seriously considering their human rights dimension may harm the people affected and render the policy ineffective and possibly detrimental.

This absence of careful thought about the human rights implications of health policies is not surprising. Often public health officials are not familiar with human rights doctrines. Even those who are, may lack the skills and knowledge to assess a policy from a human rights perspective. Examination of health policy from a jurisprudential or ethical perspective, while important, is not a substitute for a human rights analysis. The human rights perspective is unique because it is based upon an organised set of internationally recognised enforceable legal standards.

At the same time, the human rights community has rarely written or litigated in the area of public health. It is no wonder that there is no widespread dissemination of emerging knowledge base on the nuances of the evolving body of law on the complex dimensions of international human rights. Even so fundamental a human rights' concept as the right to health has not been operationally defined, and no organised body of jurisprudence exists to describe the parameters of that right.

The right to health is a concept that requires a multi-disciplinary approach. Development experts, human rights activists and scholars, personnel of international organization such as WHO and UNICEF, and public health experts should collaborate in the effort to further define the scope and legal obligations of the right to health. The National Human Rights Commissions and international organs called upon to monitor the right to health, recognized in international treaties, must be able to draw upon the knowledge of those trained in the health disciplines.

Public health and human rights experts are also handicapped in the development of collaborative scholarship and action by the absence of an analytic tool for systematically assessing the impact of public health policies on human rights. Just as environmental impact assessments are done for major irrigation project proposals, so too must a human rights impact assessment be done while examining health policies. Such a tool will be invaluable for evaluating real-world public health problems and is bound to become essential for teaching human rights in schools of public health, medicine, government and law.

Multi-disciplinary consultations help explore the reciprocal influences of health and human rights including the impact of public health programmes and policies on human rights, the health consequences of human rights violations, the importance of health for the realisation of human rights, and the ways in which promotion of human rights can be incorporated as an integral part of public health strategies.

The two-day Workshop, spearheaded by the National Human Rights Commission of India in collaboration with the Ministry of Health & Family Welfare, Govt. of India and the World Health Organization, being held in New Delhi on 10 and 11 April, 2001 will explore new grounds in the area of human rights concerning Health Services, especially emergency medical care, Nutrition and Tobacco control. There is a need to evaluate public policies and programmes to diminish the conflicts that often arise between individual rights and the public good.

This collaborative endeavour, involving eminent human rights scholars and practitioners, public health and development experts and international agencies like WHO, UNICEF and FAO, will provide useful and pragmatic guidelines for action by the various agencies involved. The Law University, National Law Schools and major Law Colleges can also identify specific areas and collaborate with medical and health sciences colleges and faculties of sociology in their respective areas for development of expertise and training in these areas.

COMMUNITY VILLAGE HEALTH WORKER

Dr. Anant Phadke

Doubts have been raised in recent years, about the value of VHWs, in the 21st century. I would, argue why, some of us, who have been working with the Village Health Workers for the last 15-20 years, believe that they have a crucial role to play if the goal of Health- Care for All is to be realized.

Medical services of whatever quality are now available all days of the week at the taluk-level. However, a few kilometers beyond the taluk-place, the situation has hardly improved during last 20 years; medical care of fair quality is still a far cry. Unqualified quacks have increased, unnecessary intravenous saline infusions by these quacks is now the new mode of cheating. What is most important, there is no residential private practitioner of any kind, including any quack, in more than 80% of the villages, as clearly brought out by the recent survey in Nasik district, Maharashtra state, by Drs. Shyam Ashtekar and Dhruv Mankad.

The PHC structure is primarily geared to family-planning, immunization and a few of the National Health Programmes Villagers are still deprived of even First Contact Care even more than 50 years after independence. In the foreseeable future, there is no possibility of any appreciable improvement in this situation so long as we continue to depend on the doctor-centreed model. The Community/Village Health Worker (VHW) is, therefore, very much needed even today.

Rationale and the advantages of VHW

As part of a good team, VHW is very much relevant and useful, Let me reiterate the rationale and the advantages of VHW in such a context:

1. Since VHW is part of the community, s/he is more accessible at any time compared to an outsider.
2. Secondly s/he is culturally more-acceptable and hence more effective in health-education. Health Education by VHW involves propagation of specific, predetermined messages and is intellectually not a very demanding task like diagnosis and management of a whole variety of ailments. Hence this task can be easily carried out by a layperson after a short course of training. (This is not to suggest that health-educations is 'easy' or is devoid of theoretical basis. It only means that a short course of training is sufficient to teach the basics of health-educations to VHWs). The additional, specific advantage of health-education done through the VHW is that VHW can present the health- messages in a language and in the cultural context which people can understand. S/he can even modify the message in a better way than an 'educated' outsider can do.
3. VHWs are in a far better position to elicit people's cooperation for community action on health-issues.
4. Diagnosis and management of some common ailments like diarrhoea, malaria, viral fevers, simple respiratory tract infections, scabies, conjunctivitis, simple wounds etc. ('where there is no need of a doctor) can be done by a lay-person after a short period of training. In India, in rural areas, where qualified doctors are hard to come by, medical services for such ailments can be rendered without decreasing the quality of work. This VHW must, however, be trained to refer appropriate cases in time.
5. Limited training means cheaper human power. This is a distinct advantage in a poor country. (VHW) honorarium should not, however, be paltry as it is today).
6. VHW is a living example of how to demystify medical science. The fact that a layperson from the community can treat ailments and give guidance in health-matters helps demystify medicine. Secondly VHW's many times use more appropriate words, phrases etc. to explain medical points. This also helps to demystify medicine.
7. Some of the traditional herbal medicines seems to be effective in certain conditions and VHW's have a lot of knowledge and a great deal of interest in this issue; whereas outsiders are deficient in both.
8. Ravi Narayan has argued that the VHW can be a 'consumer -activist' at the village-level. For example, since s/he knows the value of cold chain in immunization against polio; or knows the value of aseptic precautions during inceptions; knows about different medical services that ought to reach the villagers; s/he can represent people's interest to see that these services are properly delivered in rural areas. This is an interesting idea. But the health-team has to support the VHW to fulfill this additional role. VHW on his/her own is rather powerless.
9. VHW's can be community-organizers, as has been seen in many health-projects. At grass-root level, there are many times no clear division between health-work and non-health work. Many VHW's have leadership qualities, which take them far beyond health-work alone. But this role of community leader or community-organizer is not an essential part of the role of VHW. If a VHW can play this role, it is to be considered as bonus.

VHW can play an important role in the health system if

(i) He/she is properly trained and retrained,

(ii) Is provided with adequate, proper health - educational material,

(iii) Is supplied with adequate amount of drugs in time,

(iv) Is not treated with disrespect by the doctors and nurses *and*

(v) The PHC -team of which s/he is a part is competent team with credibility amongst the people.

The success of the VHW is directly proportional to the degree of fulfillment of the conditions listed above. This is particularly true in developed rural areas and cities, where medical care delivered by doctors (of whatever type and quality) is easily accessible. The most important issue for VHW is his/her credibility amongst the people. This can be achieved with a good medical team and/or by the credibility of the developmental team or social movement of which the VHW could be a part. Today, VHW seems to be an unsuccessful idea because of the poor functioning of the VHW's in the government system. This is because of poverty at all levels-selection, training and support to the VHW's primarily because there is no faith amongst the PHC doctors, in the potential of the VHW's and the whole scheme is either neglected or used for local political interests. Secondly, the PHC system is grossly inadequate and not popular. The VHG-scheme, which is a part of the overall PHC structure, is today mostly defunct. This is because of the deep-rooted problems of the PHC-system in India. The question therefore is not 'Is VHW relevant today?' but "Is Government health-system relevant today?" With decreasing funds, motivation, the PHC-structure is turning into merely 'Centres of immunization and Family Planning'. But in the NGO sector there are a number of health-centres, which have a good reputation and a good VHW-programme.

Different scope in different areas

Lastly, the role and scope of VHW in different areas may differ. In areas where modern medical care is not only unavailable, but is also inaccessible due to difficult terrain and lack of proper roads and other facilities, VHWs are more accepted by the people and would have larger therapeutic responsibilities to share. Secondly, though any VHW has to be part of a health-team in remote areas, VHW's link with the team is rather loose. In such areas, VHW's have to carry out tasks without direct help from the health-team. On the contrary, in areas where medical services are easily accessible, (periurban areas, and developed rural areas) the VHWs are less accepted by the people. People prefer to go even to quacks for injections rather than take rational advice and treatment from a VHW. In such areas VHW will have to be given other tasks not usually carried by the established medical services. For example, early detection of various disabilities in the community, health education about these disabilities, counselling etc.

This is in addition to the usual training of the VHW. Even in these areas, if VHW's training is upgraded, people will accept their services. With very rudimentary training being given to VHW's today, they are primarily useful only in remote areas. This situations must change. VHW's training must be upgraded.

Philosophically speaking, VHW's should be useful in all areas, even in urban and well-to-do areas. One of the rationale of VHW is that in health-care delivery, there are many situations '**where there is no need for a doctor',** nor doctor is the best suitable person for a variety of tasks in health-care-delivery. If there is a well-trained Community Health Worker, it will be better to go to him for a neighbourly, informal advice about minor ailments rather than to lengthen the queue in the doctor's clinic? However, today in India, people have almost a superstitious belief in injections. Hence the acceptability of the VHW is not so easy. But we have to develop mechanisms to increase this acceptability.

Even if there is a social revolution, and hence far more availability of doctors, it is unlikely that the availability of doctors in rural area would improve dramatically. Hence VHW would remain relevant for many years even after a social revolution.

None of the paramedics are today legally allowed to render medical service beyond carrying out standing instructions of a doctor. VHWs are, therefore, today legally vulnerable, since they are to carry out many independent medical tasks. They need **legal protection.** We should lobby to change the existing laws towards that effect. The meaning of 'standing-instructions' should be broadened to include specified tasks for which VHW has been trained. When the Government is today effectively withdrawing the Village Health Guide-scheme, VHW's in the NGO sector would now be more vulnerable socially as regards their legal status is concerned. This legal vulnerability is an obstacle in VHW's assuming a proper role in our society.

On the one hand, the existing establishment looks upon VHW merely as a cheap populist measure to create a semblance of health-care for rural areas. But since it is not committed to the success of this programme, what remains in practice is a mockery of the philosophy of the VHW-programme. The official

VHG-programme exploits VHWs and hoodwinks the people with empty slogans of 'Your health in your hands'. On the other hand, some radicals tend to dismiss the idea of VHW as a mere ideological tool of the ruling class to cover up its failure to provide qualified doctors in adequate number for rural area. Let us keep away from both these extremes by appropriating the rational kernel of the VHW-based programmes.

It is sad that even after 50 years of Independence, the elementary goal of Health for All through Primary health Care still remains unfulfilled. But if we overcome the shortcomings outlined above, it is very much within our capacity to achieve in near future, Health-Care-For-all through the Primary Health Care approach. The point is who is going to mobilize sufficient public opinion to achieve this goal?

POPULATION CONTROL AND CONTRACEPTION CHOICE

Women and Health — Myth of Population Control

Dr. Amit Sen Gupta

About three years back, after decades of devising various family planning targets, and strategies to meet such targets, the family planning (or welfare) programme in India claimed to have decided to shed its target based approach. Interestingly, this *volte face* came in the wake of recommendations to similar effect by a World Bank document of June 1995. Probably, not so surprising given the fact that major policy decisions in key sectors are taken today only after their "clearance" from foreign donor agencies. Thus, while the target oriented approach has invited criticisms from diverse quarters within the country for more than twenty years, the government chose to react only when called upon to do so by the World Bank. That this apparent shift was only to be an eyewash was brought into sharp focus when the then Minister for Health and Family Welfare, Ms. Renuka Chowdhury brazenly announced that the country was committed to implementing a "one child norm". She further proceeded to initiate recommendations for punitive "punishment" against defaulters. So much for the rhetoric of a non-coercive population policy!

Obsession with Targets

Targets in the Family Planning Programme in India have, for decades, been a major obsession. From the village *patwari* and school teacher, to almost all Government functionaries working in rural areas - virtually no one was immune to the demands of meeting FP targets. Not surprising, considering the popular perception which links all social, political and economic ills of the country to its increasing population. Consequently, policy makers and planners in India have consistently treated the country's population "problem" as its favourite "whipping boy". From virtually the programme's inception in 1952, family planning targets have been translated to mean use of coercive measures to ensure contraceptive use. Promotions, postings and transfers of functionaries have hinged around fulfilment of targets related to contraceptive use. Down the years, the contraceptive methods to be propagated have changed— from Intra Uterine Devices (IUDs) till the 1960s, to vasectomy in the 1970s and finally to tubectomy and injectable contraceptives in the 1980s and 90s. What has remained constant is the single minded devotion to fixing targets and ensuring that these are met. The high noon of the target fetish of the programme was seen in the days of the Emergency between 1975 and 1977, and contributed in no small measure to the downfall of the then Congress Government. Yet, even this experience resulted in only cosmetic changes to the target oriented approach. Probably the only lasting effect was the one an nomenclature - the Family Planning Programme being renamed the Family Welfare Programme.

A dispassionate assessment of the programme in its four and half decades of existence raises many interesting issues. Female sterilisation accounts for about three-fourth of contraceptive prevalence in India. Male methods account for only 6 percent of current contraceptive use. Only 5.5 percent of couples use reversible modern contraceptive methods.

Development is the Best Contraceptive

Total acceptors of contraception constitute just 43% of couples in the child-bearing age group. Even this is likely to be a major overestimation, linked to over reporting - a bane of the target oriented approach - and to the fact that a large part of this figure is made up by tubectomies conducted on women towards the fag end of their reproductive life. Indirect evidence too indicates that the programme can hardly be held responsible for the few success stories in population planning in the country - Kerala and Tamil Nadu. Kerala's success in achieving results comparable to the developed world - vis-a-vis both demographic and health indicators - have been widely attributed to factors such as high minimum wages, land reforms, high literacy rates and access to universal health care. Much of Tamil Nadu's success in pegging down birth rates in recent years is being attributed to improved child survival due to the massive statewide feeding programme for undernourished children and improved communication facilities. Both experiences strengthen the maxim that "development is the best contraceptive".

Experiences within, as well as outside the country, show that reduction in population growth rates follows overall socio-economic development. Except in conditions of war and famine they seldom precede such development. Yet this has largely been ignored during our planning process, possibly as it prevents our planners from blaming the country's tardy development rates on the pressure posed by population increase. As a result family planning strategies have tended to be paternalistic, prescriptive & coercive. It is a strategy that starts from the belief that the poor breed prodigiously and it is the nation's duty to cap their unbridled fertility. Thus programmes are aimed at the poorest sections, more specifically at women. Tubectomy rates in the country are fifty to hundred times higher than vasectomy rates, though the latter is far simpler & safer. Harmonal methods aimed at women find precedence over propagation of condoms, in spite of widespread reports that the former are associated with a large number of health hazards. In this whole process the supposed beneficiary - the improverished rural woman - has virtually no choice. She is at the receiving end of technologies which the state or society believe are necessary. Such programmes are inappropriate not only because they victimize women, but also because they do not work.

Such a strategy has undermined the effectivity of the general health care infrastructure as well as the faith that women have in this infrastructure to address their real concerns. Most programmes, have tended to view women as assembly fine appendages required to produce babies. Thus a woman's health becomes important only when she is pregnant or lactating. But in India 65% of deaths in women are due to infection related causes and only 2.5% of deaths are related to childbirth. Even among women in the reproductive age group only 12.5% of deaths are due to childbirth associated causes.

Chain of Coercion

It is in this context that the new shift in population policies need to be viewed. A target free approach is indeed a welcome change. Unfortunately the World Bank's concern regarding the target free approach to family planning does not emanate from any of the concerns cited above. Rather it is a reflection of the Bank's impatience with the alleged slow progress in third world nations towards controlling population growth. Population policies funded or dictated by the North look for numbers as the ultimate bottom-line, not at esoteric statistics of empowerment and development. The agenda on population control, flows from fears in the Developed countries of North America and development. This agenda on population control, flows from fears in the Developed countries of North America and Europe that the resources of the planet will not be able to keep pace with the current rate of consumption. We are being made to believe that large population growth rates in the South is responsible. Yet the hidden agenda is related to the fact that the developed North is unable or even unwilling to curb the consumption patterns in their countries. Each child born in North America consumes as much energy as 3 Japanese, 6 Mexicans, 12 Chinese, 32 Indians, 147 Bangladeshis, 281 Tanzanians or 422 Ethiopians. Wolfgang Lutz of the International Institute for Applied Systems Analysis reports that the key factor in determining population impact on environment and other global resources is the number of house-holds, rather than the number of people, because an increase in households correlates to a dramatic increase in energy use, which drains resources and compounds pollution.

He also points out that household numbers are on the rise in the developed world, due to divorce, increased life expectancies, and more elderly and single people living alone.

Yet we are told that the poor nations of the Third World are the culprits who must listen to the voice of reason emanating from the corridors of power in Europe and America. The locus of coercion does not stop here. Third World nations, eager to implement population policies, pass on the burden of these programmes to the poorest sections. All part of the familiar argument that the poor 'breed' too fast and that is the root cause of their poverty. Finally, the ultimate victims (not beneficiaries) of population programmes are poor illiterate women. Thus a bulk of strategies for population control target women. This completes the **chain of coercion** - from the global North to the underdeveloped nations of the South, from the governments of these nations to the poorest communities, and ultimately women in these communities.

Family planning campaigns, pushed down the throats of Third World Countries by foreign donor agencies and developed countries, tend to go through stages. In the very beginning, the idea is introduced in a discreet way. Scholarships might be given to promising students from target countries, who are sent to American schools to learn about contraception. Often the same people return to act as advocates for the service, speaking out to the news media and public officials on behalf of a national family planning effort. Gradually, funding from outside is increased and the local family planning "community" becomes more visible. Donors then begin to take up the issue with host country officials, and a population policy may be negotiated as a condition for economic aid or credit. Once the government becomes an active participant in the program, funding grows substantially, and a variety of activities are undertaken to maximize the impact of the program. Once voluntary family planning services then begin to set goals for the recruitment of users, and specific "motivation" and "mobilization" drives are launched. As the program gather speed reproductive freedom and informed consent diminish in importance.

The history of foreign-funded population actions in Indonesia presents a classic example. The programme got started in 1968, soon after the reins of government were taken over by military leaders in a bloodbath that may have taken as many as a million lives. There are many stories of coercion during *safaris* (a term used for the family planning outreach effort) - some of which are vividly recalled by Family Planning workers who have been working in the area since the 1970s. During 1978, a number of women had IUDs inserted without their knowledge, which resulted in furiously offended husbands attempted to kill Family planning workers with daggers. Those cases and many subsequent refusals, were dealt with with by the police or army using intimidation of the husband or wife or both.

Reproductive and Child Health

In the same breath that the new population policy talks about the target free approach, it talks of a new Reproductive and Child Health (RCH) package, which shall replace earlier mechanisms. The essential coercive content of the family planning programme has, thus, been kept intact. As the name itself suggests, the concerns are with reproduction and not health. The gaze of the programme is still firmly fixed at women as targets.

Nomenclature notwithstanding, the new policy carries within it the basic core of earlier policies, which made them unacceptable to large sections of women in this country. Women need access to family planning services because of their own health needs. But such access has to ensure that women have a choice, that women are in a position to make decisions about their choice. In order for a policy to centrestage women's concerns and needs, it should revolve around a package that addresses women's health in all its dimensions and not just their wombs. Women need access to contraceptive methods and information about their effects on their bodies. For this to happen contraception must form part of a comprehensive Health package. Such an approach, unless willing to shed the paternalistic baggage of earlier policies, is likely to flounder.

The "new" approach to women's health has actually been borrowed from the World Bank Report *India's Family Welfare Program: Toward a Reproductive and Child Health Approach.* Policies of sovereign Governments are today dictated by World Bank, and it is hence important to understand the thrust of this document to understand the real motivations of the Government's policy. As is the Bank's forte today, the

document borrows heavily from terms in vogue among serious critics of India's Family Planning Programme. Unfortunately this does not translate easily into sharing the same concerns. In order for the proposed approach to be seen as a break rather than as a continuity of older programmes, it must be demonstrated to be able to sever the **chain of coercion** outlined earlier as well as to locate itself within the real and not the perceived concerns of women.

The real intent of the "new" approach becomes transparent when the goals are seen to be subservient to "broad social policy" and "demographic objectives" in the following manner in the World Bank document:

> *"The new consensus recognizes that an important goal of reproductive health programmes should be to reduce unwanted fertility safely, thereby responding to the needs of individual for high quality services, as well as to demographic objectives."*
>
> *"While fertility reduction concerns can be addressed at the level of broad social policy, the design and management of reproductive health programmes need to be directed primarily at the needs of actual and potential clients."*

This is the crucial place where the Bank's prescriptions fundamentally differ from the concept of Reproductive Health as conceived by the feminist movement in the West. In the latter case Reproductive Health, as a genuine concern among a large body of women, stands on its own and is not seen as a means to an end. Here the logic is turned on its head and under the guise of addressing women's concerns the agenda of Reproductive Health is seen as a method of attaining objectives set by faceless financial institutions and governments. The program thus fails in its first test of being able to break the first link in the chain of coercion. The links in the chain of coercion in fact are sought to be strengthened and not weakened. The report for example says :

> "In May 1994, the Swaminathan committee submitted to MOHFW a draft report with recommendations for a new national population policy... to promote an <u>enabling political environment</u> and community involvement in addressing family welfare issues." (emphasis added)

This reference to an "enabling political environment" needs to be viewed in the context of the Swaminathan Committee's proposal to debar persons with more than two children from contesting elections to panchayats. Such amendments were in fact incorporated in the Panchayat Acts of Harayana and Rajasthan: curiously two states with the most adverse sex ratios. The report indicates that a totally new set of targets, incentives and disincentives would be required to replace the older set.

> "An innovative package of incentives/disincentives would be formulated with emphasis on community based incentives and social security measures for individuals adopting small family norm. The <u>community based incentives would be linked to various benefits being made available to the public under different socio-economic development plans of the government."</u> (emphasis added)

Thus what the report is really talking about is <u>not</u> a winding up- coercive mechanisms in the family planning programme but a <u>widening</u> of the net. The above allusions, if translated into policy would mean entry and promotional avenues in all jobs in the organised sector (Govt. or private) would be linked to family planning "goals". Furthermore, linking up incentives/disincentives with social security measures and socio-economic development plans are a clear threat that access to social security measures (to the limited extent that they exist today) will be made conditional upon adherence to prescribed family planning goals. Arguably this could cover access to loans under rural development programmes, rural employment programmes and even access to the Public Distribution System. It is inconceivable that the goals to which such access is subservient will, if not fully, in large measure be determined centrally. So much for the rhetoric of a "client centred" approach. Linking social security access with demographic objectives in fact also serves a major agenda of the World Bank — limiting the States expenditure in social infrastructure areas and food security.

The impression that has been sought to be created that the new approach, by doing away with local targets would in one sweep free the programme of its essential tyrannical and oppressive core is entirely

misplaced. For all the lip service paid to community and local self government involvement in the programme, the report speaks of the perceived threats from panchayat structures in the following manner :

> "... panachayats .... may interfere with the technical integrity of the program, for example, by demanding curative care at the expense of preventive care, as happened after decentralization in China."

The "technical integrity" of the programme is thus seen as sacrosanct and not open to negotiation. The smoke-screen of a participative approach notwithstanding, the proposed approach is exposed for what it really stands for - a top down, patriarchal approach. Female sterilization is to remain the linchpin of the programme and there is a candid admission that a shift from targets in this area is merely tactical. In fact elsewhere the report admits that this shift has largely been necessitated by the poor returns in terms of achievement of demographic goals rather than by concerns related to women's reproductive health. In keeping with its stated objective of providing more choices (through the cafeteria approach) the report's recommendations for new technologies to be adopted rely heavily on long acting hormonal contraceptive methods.

Such methods are, by their very nature, provider dependant. More so, in an environment where women are not literate and have very little access to information and health services. Introduction of these methods are thus an invitation to spread reproductive ill-health. The specific programmes mentioned in the report, possibly to justify the nomenclature of reproductive health, appear to have been picked for their so called cost-effectiveness. The report needs to be commended for the remarkable consistency in approach with the Bank's World Development Report 1993, *Investing in health.* There too the primary concerns were cost effectiveness and targeting. The concern, clearly articulated in both documents is to choose interventions which provide best value for money and not necessarily where the burden of disease is the greatest.

Thus anaemia is seen as a problem for women only when they are pregnant or lactating. On the other hand growth monitoring and supplementary feeding are not cost-effective. This needs to be viewed in the context that 88% of women in India are anaemic and 53% of children under five suffer from some degree of malnutrition-both figures are the highest in the world with the possible exception of Bangladesh. Anaemia in women is not just a consequence of reproductive ill-health- it is a function of diverse factors including discrimination of the girl child, undernutrition and social toboos. Child malnutrition is possibly the greatest tragedy of post-Independent India with 2/3rds of its population being maimed in its initial formative years and being consigned to a handicapped existence the rest of their lives. What in essence the Bank is proposing is a caricature of Reproductive and Child Health designed according to its peculiar logic.

The Child Health Programme was added to the Family Planning Programme in the post-Emergency days when a major refurbishing of the image of the programme had become a necessity for its very survival. The only real component of the Child Health Programme has been immunisation, to the almost total exclusion of other interventions (with the possible exception of the largely ineffective diarrhoeal disease control programme). Yet the report is congratulatory of the Child Health Programme. Budget estimates show that the MCH component is only a minor component of the Family Planning Programme:

Allocation for National Family Welfare Programme
(in Rs. Crore)

	1992-93	**1993-94**
Total	1099.91	1474.72
MCH	348.75	419.75
MCH as % of total	32%	28%

(Annual Report, MOHFW, 1993-94, Govt. of India)

Yet the document itself notes that MCH spending is far below World Bank recommendations:

> "At about Rs. 19.00 percapita per year... it (India) spends less on maternal and child health and family planning than the Rs. 28.00 recommended for family planning alone by the Word Bank's WDR, Investing in Health. The report considered spending on MCH and family planning to be among the most cost-effective health interventions, and recommended spending Rs. 167 per capita for these services in low-income developing countries."

Thus by the Bank's own calculations MCH expenditure should be the tune of 83% of the total expenditure on family planning and MCH. Yet in India the situation is quite the reverse with MCH accounting for only 30% of total expenditure on family welfare. By the Bank's own calculations India needs to spend **25 times** more on MCH. Yet the estimates for increased investment required do not in any way reflect this, with a modest increase of 40-60% of current levels being projected. If this is the level of evaluation of the existing MCH component of the Family Planning programme, there are every reasons to doubt the seriousness of a commitment to the added component of Reproductive Health.

As in other areas the document also represents continuity in the present approach of pursuing family planning goals to the detriment of general health care. The report says:

> "..... spending on the disease control programmes is increasing, and the workload of these programmes threatens to cut into the time both ANMs and the NMPWs can spend on reproductive and child health work. A review of MMPW's and ANMs' work loads should be carried out as a basis for policy decisions on the future strength of the MMPW cadre, and rationalization of the ANM's role in other programmes."

In other words, instead of strengthening exiting health infrastructure, the report recommends drawing away more resources from it for family planning. Finally the document, again consistent with the Bank's old positions, makes a strong plea for greater role for the private sector-including privatisation of Primary Health Centres and involvement of private medical practitioners (PMPs).

Contracting out PHCs to the private sector can only allow profiteering. How this shall serve the so called "client" base identified by the Bank is obscure. The PMPs, the document talks of in rural areas are in essence unqualified quacks, and are engaged in a pursuit punishable by law. One wonders whether the Bank wishes to legitimise quackery as a systemic solution to India's health problems.

Flawed Policy on Women's Health

Finally, a word about the basic philosophy that guides policies for improving women's health - the basic assumption that women's health status in India is low because they bear too many children. The Table below gives comparisons of some Developing nations as regards fertility rate (i.e. average no. of children born to women), maternal mortality rate (no. of maternal deaths due to child birth for 100,000 births), prevalence of anaemia among women and prevalence of child malnutrition. The latter (child malnutrition) is a direct consequence of maternal malnutrition, and is a sensitive indicator of the nutritional status of women.

Country	Fertility Rate	MMR	% of women suffering from anaemia	Percent of children below 5 who are malnourished
Algeria	3.6	160	—	13
Botswana	4.7	250	—	15
El Salvador	3.8	300	14	11
Guatemala	5.1	200	—	27
Honduras	4.6	220	—	18
Nicaragua	4.8	160	—	12
Paraguay	4.1	160	—	4

Saudi Arabia	6.2	130	23	—
Syria	5.6	180	—	12
Malayasia	3.4	80	36	23
Vietnam	3.7	160	—	45
Zimbabwe	4.8	570	—	16
S. Africa	4.0	230	—	9
Egypt	3.7	170	75	9
Iraq	5.5	310	—	12
Libya	6.2	220	—	5
Pakistan	5.9	340	—	38
India	3.6	570	88	53

Note: —denotes figures not available, Source: Human Development Report, 1997

The figure clearly show that developing countries from S. America, Asia and Africa with significantly higher fertility rates are able to demonstrate much better health conditions for their women. But policy makers at the highest levels in this country are supremely indifferent towards such evidence. For, their concerns and perceptions are no different from those of foreign donor agencies and developed nations of the West. For them, the bogey of population is a convenient ploy to hide the class and social bias of the Indian state, which discriminates against poor women, both because they are poor and because they are women.

FEMALE FOETICIDE

The Need for Action Against Female Foeticide in India

Dr. Sabu George

Recognizing Violence Against Women

Violence against women exists in various forms in all societies the world over. However, the recognition that elimination of gender-based violence is central to equality, development and peace, is recent. In India the landmark report on the 'Status of Women- 1975' did not deal with this issue. Then in the late seventies and eighties, the Indian women's movement focused on issues of dowry deaths, female foeticide, sati, rape and other forms of violence. More recently, international conferences such as the Vienna-1993, Cairo-1994, Copenhagen - 1995 and Beijing-1995, explicitly highlighted this problem. The World Health Assembly in 1996 endorsed that violence against women is a public health problem. In 1998, the 50th anniversary of the 'Declaration of human rights' was celebrated by the UN with a global campaign for elimination of gender based violence. The objective was to influence public opinion and attitudes, policies, practices and legislation to facilitate a violence-free life for women.

Female foeticide is one extreme manifestation of violence against women. Female fetuses are selectively aborted after pre natal sex determination, thus avoiding the birth of girls. In India where female infanticide has existed for centuries, now female foeticide has joined the fray and is increasing each day. The reasons for this evil are the introduction and proliferation of pre natal diagnostic test/ sex determination clinics and cheaper ultrasound machines that help determine the sex of the child before it is born. Dramatic reduction of birth rates in most of India's states contributed toward intensification of son preference in the existing patriarchal society. And one must also not forget the lack of ethics in pockets of the medical profession that result in furthering female foeticide. For instance in Tamilnadu the establishment of numerous ultrasound clinics in semi-urban areas since the mid-nineties is not a widely known fact. Even rural families in the state have begun to commit female foeticide to satisfy their preference for sons. In Harayana, residents of upper caste hamlets openly admit to the widespread practice of female foeticide. Parents tend to be calculative in

choosing the sex of the next child and the decision is based on the birth order, sex sequence of previous children and number of sons. Transfer of reproductive technology to India is resulting in reinforcement of patriarchal values as professional medical organizations seem to be indifferent to ethical misconduct. These facts have to be publicized so that awareness can be raised and appropriate action by the state and civil society be initiated.

The Failure of Activists

Most NGOs and the medical professional concerned with female foeticide for the post two decades, failed to recognize the likelihood of its rapid spread. The first private clinic was set up in Amritsar in 1979. This trend soon spread to other cities in North and Western India, resulting in adversely influencing the sex ratio in those parts of the country. A ten year gap ensued before the proliferation of these clinics began in Southern India. In the early eighties attention was being given to the issue of female infanticide but the activists had not anticipated the problem of female foeticide. Although the spread of this problem was initially slower, many taluks even in backward parts of Karnataka and Andhra Pradesh now have sex determination clinics. There were occasional media reports from 1992 onwards about the abuse of ultrasound for fetal sex determination in major cities of Tamilnadu. Despite expression of concerns from the mid nineties about the prevalence of female foeticide in rural areas, NGOs and others involved in work against infanticide did not prioritize action against foeticide. Even elementary steps were not taken; for instance there was no lobbying with the state to set up the mechanisms to register sex determination clinics as mandated by the 1994 national law; and there also was a failure to confront the medical profession's insensitivity to the gross violation of medical ethics.

Intensification of Son Preference Related to Fertility Decline

Fertility decline has taken place in all economic and social groups in most parts of the country, especially in Tamilnadu. The sharp fall in birth rates from the eighties is one contributory factor for intensification of son preference. Similar developments have been earlier observed in other patriarchal societies such as China, South Korea, Taiwan etc., with the decline in fertility rates. Sex determination methods were being used from 1979 onwards in North India to manipulate sex composition of children to have greater proportion of sons. In 10 years, the sex ratio of pre-school children in Punjab dropped from the already low levels (925 to 874 during 1981-1991). Sharp declines also occurred in Harayana and Rajasthan, states where female foeticide is widespread. In less than a year the 2001 census will reveal the present situation in Punjab and other states. The indication we have from the grassroots level is that there will undoubtedly be an even steeper fall against girls. There are more than one thousand ultrasound clinics in Punjab. And elaborate networks from the village level to the nearest urban ultrasound clinics for referrals exist, where each link gets a commission from the clinics.

In Tamilnadu, the hospital birth data in recent years, reveals an increased masculination in sex ratio at birth (109 boys per 100 girls against the expected 105). This is essentially an urban sample. The 2001 census may not see any significant improvement in the sex ratio of surviving children in Tamilnadu. However, we will have a definitive information on whether there is a decline in infanticide due to replacement by female foeticide. But one things is quite certain, the establishment of sex determination clinics is the early warning sign for the impending drop in sex ratios. It takes a decade for the practice to spread and gain widespread social acceptability. And, if a significant number of families in the new millennia start opting for one or more sons with none or fewer daughters, there will be an alarming drop in sex ratios. Our challenge is to reduce the anti-girl attitude of our society before fertility becomes less than two [given current fertility levels, women will have an average of nearly 2 children during the child bearing years].

Significance of the Law On Pre-Natal Diagnostic Techniques

Recent history of social legislation in India are hardly encouraging as far as their implementation is concerned. However the national law against prenatal diagnostics is a positive step. For fifteen years (1979-

1994), when private sex determination clinics were first established and the practice of female foeticide flourished in north-western India, the people had received no message questioning the morality of this practice. The enactment of the law enabled the National Human Rights Commission to direct the Medical Council of India to take action against Doctors found abusing prenatal diagnostic techniques. Today, blatant advertisements for fetal sex determination once seen in Bombay trains in the early eighties and in Delhi newspapers in the late eighties and nineties have virtually disappeared. Thanks to laws.

The first state law enacted in Maharashtra against sex determination was the Maharashtra Regulation of Use of Prenatal Diagnostic Techniques Act, 1988. This was the result of vigorous public campaigning in the state. After this law was effected, the number of SD clinics in Mumbai went down and the practice of SD also lessened. This achievement was all due to sustained campaigning and active monitoring of the Act by the FASDSP [Forum against sex determination and Sex Pre-selection]. Unfortunately this campaign faltered when the FASDSP became non functional and quite a few of the sex determination clinics in Mumbai resumed operation. However this campaign proved that a lot can be accomplished by sustained efforts and eradicating complacency in the state governments. All future campaigns have to learn from the shortcomings of the abortive Maharashtra campaign. State Governments should realize the importance and priority of the present law and not merely treat it with their usual complacency. Tamilnadu is one such state that has yet to take effective and prompt action in the implementation of this Act.

The inadequacies of the present law are largely because the Government of India has not been seriously committed to achieving the intent of this Act- The elimination of Sex Determination Testing. Also, due to effective lobbying of Doctors in the early nineties, several positive features of the Maharashtra Act 1988 were watered down in the 1994 National Act. A recent administrative directive from the Family Welfare Ministry excluded a sex determination technique like Erikson's from the purview of the 1944 Act asserting that it applied only to test conducted on pregnant women. The immediate reaction to this directive was the resumption of newspaper advertisements in North west India again promoting this sophisticated reproductive technology. These very Advertisements had been stopped only a year before when a petition challenging the illegality of these advertisements was filed with the Punjab Human Rights Commission by ‘Women Against Violence’. The unwillingness of the Government to interpret the legislation to keep it in tune with the inexorable progress in technology is self defeating.

Measures Required to Reduce Female Foeticide

The structures necessary for the implementation of the 1994 law have to the created at the district level. Volunteers have to be actively mobilized to monitor the registration and the functioning of the sex-determination clinics in different districts. Effective alliances with ethical Doctors have to be made from the local levels. Test cases have to be filed against the violators. And also important is that we have to preserve with the media to highlight obstacles in the implementation of the Act. The consciousness of our society has to be raised against this crime. Simultaneously we have to get involved in actions to ensure that the public at large becomes supportive of this campaign. Lobbying with political parties to put this issue on their agenda is imperative. All this is just one step towards efforts to empower women in our society.

The deterioration of women's status and the emergence of female foeticide is not a unique sociological phenomenon confined to a particular state. The trend is all over the country; even in diverse cultural contexts where there has been relative greater gender equality; such as in the Uttarkhand hills or the Kashmir valley. Our challenge today is to initiate a vibrant, effective campaign against female foeticide. If we are all committed then only can we reach out to the hearts and minds of our people. Jammu & Kashmir is important as it is the only state in the country where there is no legal prohibition against sex determination testing. The earlier campaigns in the country against sex selective abortions failed despite the moral correctness of the issue, as they could not create a sustained social movement against this heinous crime. To stem the increasing epidemic of female foeticide we have to expose the collusion of unethical medical practitioners with the patriarchal society. The campaign has to oppose the commodification of women in popular culture and media. Organizations and individuals with different priorities and ideological beliefs

have to rally together to battle the powerful forces operating within the institutions of the family, government and civil society. A transformation of our gendered society, is necessary for the elimination of female foeticide.

VIOLENCE AND WOMEN'S HEALTH

S. Sudha

Gender based violence against women poses a threat to women's lives across the globe as never before. Women face violence directly and indirectly at every stage of their lives. The threat today extends to even before they are born.

The widespread prevalence of gender discrimination; old and new forms of cultural control and the complexity of other underlying socio- economic factors combine to impact adversely on women's overall health status. The Peoples Health Action plan must undertake a comprehensive analysis of this issue and prioritize methods of intervention.

Increase in Atrocities

There has been a marked increase in the incidents of the atrocities against women over the past few years. Going by government statistics, the number of crimes against women registered under the Indian Penal Code has increased from 82,880 in 1994 to over 1,13,000 in 1998. Recently released figures from the National Crimes Research Bureau for the year 1998 show an 8.3% increase in registered crimes against women. In the years 1997, 1998 there were 13000 dowry deaths, and 13910 registered cases of rape. A most disturbing feature was the big increase in cases of molestation and sexual harassment to about 40000. Over 35% of cases of sexual assault are against minors. Young women who have rejected sexual advances made by men have been brutally victimized. Horrifying cases of their being murdered, or acid bring thrown on them have been reported from many states. Thus the ferocity and extent of atrocities being committed on women is rising, and poses a grave challenge to society.

Background

There are a number of reasons for this increase in violence against women.

1. In India, the past few years bear witness to increasing attacks on women belonging to minority communities or to dalit and adivasi castes. Humiliation of women by stripping them, parading them naked, abusing their bodies in inhuman ways are instruments to punish not only the women but also the community as a whole. Women are symbolized as repositories of “family honour” or “community honour” and their bodies become the site to wreck vengeance.

   In communalized situations, gender identities get fragmented and hostilities cross all such boundaries.

   Polarization along caste and communal lines has the potential to destroy communities living together. This is the threat emerging in the present scenario that has serious implications for women.

2. Another recent development relates to the values generated by the so-called globalization. In the wake of liberalization, consumerism and its generation of unreal aspirations have increased the gap between desires and their fulfillment. Further, the new values made acceptable, or even desirable by such consumerism are “getting rich quick in any way possible”. In such a setting the existing unequal power relationships within the family become a channel for acquiring wealth quickly at any cost.
   Thus, old crimes like dowry extraction take new extortionist and bride burning forms. This contributes in turn to making daughters so undesirable that crimes like infanticide rear their head again, and female foeticide assumes epidemic properties.

3. Consumerist culture glorified by the electronic media has also meant the commodification of women, thanks to the media's narrow representations of women. A substantial number of people, influenced by the underlying philosophy of self-gratification and distorted image of sex, attempt to actualize their sexual fantasies in real life, thereby contributing to the growing sexual violence on women.

4. The increasing work conditions for women caused by increasing contractualization and casualization of the female workforce as part of the LPG policies has increased vulnerability at the workplace. Women in the unorganized sector especially migrant labour are at the mercy of the labour contractors and incidents of sexual harassment is widespread.

5. Moreover, older forms of violence have not only not disappeared, but are making a reactionary comeback. Ideologies glorifying "sati" or justifying wife beating are finding a wider reach. Incidents of "witch hunting" occurring more frequently in rural areas are being reported. Such questionable ways of "disposal of widows" not only has an implicit religious sanction but are linked to commercial benefits that may follow.

Thus, older and newer forms of oppression continue to strengthen and feed on each other.

Some of specific issues in gender based violence

Rape: Double victimization

Amongst the most brutal forms of aggression against women, rape is also one of the most grossly under reported crimes. Because of the social stigma attached to a rape victim, most rapes are committed not by strangers, but by relatives or known people. In addition to the trauma of the rape itself, victims have to suffer repeated agonies during the legal proceedings.

The law enforcement procedures for rape are especially weak and often help the culprits to escape. At present, the conviction rate for rape is barely 4%, and cases take many years for sentence to be passed. In 1998 for example, 82% of rape cases registered in the country were still pending trial.

In spite of a progressive judgment of the Supreme Court, which says that the sexual history of the rape victim is not relevant, such questioning is invariably used to distort the issue.

It is essential for rape laws to be brought in line with UN recommendations, where questions that could impeach the character of the victim are inadmissible. In-camera proceedings, protection of the victim's identity, media restraint and time bound trial are some key reforms necessary to make legal actions more effective.

Sexual Harassment

Harassment of women in workplace and in public spots-euphemistically referred to as eve teasing, is another crime where the onus is borne by the victim as having "asked for it" in some way. Even after the landmark decision by the Supreme Court in 1997 laying down guidelines for the prevention of sexual harassment in work spots-very few government offices have enforced them. The private sector has totally ignored the judgement.

Prostitution

Recent campaigns around the issue of prostitution highlight the alarming increase in trafficking, especially of girl children. Prosecution yet again is focused on the victim, rather than all the guilty partners. Shrinking job markets and today's global trends make women especially vulnerable to sexual commodification. In the absence of other avenues, women are being pushed to selling their bodies as a means of survival. The attempts being made by global capital to exploit this helplessness and organize it into a profit making industry need to be resisted. At the same time, women's basic rights to a healthy life should be protected.

Domestic Violence

As in all patriarchal societies, here too domestic violence is an extremely powerful instrument for suppression of women. Because of covert social and religious sanction, women are expected to bear the brunt of physical and other forms of torture without expressing protest. Women are conditioned to internalize this grievous injustice and thus become active participants in carrying forward oppressive legacy. Behavior codes handed down to sons and daughters (and daughters-in law) reveal here this ideology of subjugation through violence has been handed down through generations.

Alcohol consumption is another major factor contributing to domestic violence and it is noteworthy that women's struggle against sale of liquor has become one of the most powerful forms of women's resistance to domestic violence.

Custodial Violence

When state institutions, which are meant to enforce the law, are themselves guilty of criminal contravention by indulging in rape of or abuse of women in custody or under authority-it calls into question the whole system of legal safeguards for women. Swift and exemplary action against the guilty is essential to prevent the increase in the incidence of custodial violence.

Action Plans

Building up a public consensus against discrimination

In the long run, the only effective answer to violence against women is the breakdown of patriarchy, the empowerment of women and the democratization of society. Since so much of discrimination becomes internalized as cultural values, cultural action and educational interventions are imperative to break down existing gender stereotypes fostered by patriarchy.

Society will have to be sensitized on the reasons behind different types of violence. Its roots in the expression of a male prerogative to establish and maintain power will have to be exposed.

Also, the ways in which it is being reinforced by ideologies that portray woman as a burden, as dependent on men and secondary to them in status, as victim and culprit- such deep-set notions will have to be constantly countered at many levels.

Issues to be highlighted to government for state action.

State action is essential to promote public consensus against discrimination as well as to protect and assist women victims of violence. The state's own complicity in compromising with patriarchy needs to be questioned.

Thus the People's Health Assembly should focus on:

a) Strengthening existing laws against violence- in particular, laws relating to rape and custodial violence.

b) New Legislation in areas like domestic violence, and sexual harassment, ensure that new laws are drafted to serve the purpose for which they are meant.

c) Implementing existing legislations forcefully and effectively- like the laws relating to dowry deaths or prevention of female foeticide.

d) Expanding the network of police stations and support/counselling centres for victims of gender based violence. This needs to go along with gender sensitization of functionaries in charge of these centres as well as the creation of watch dog/facilitating bodies inclusive of representatives from women's organizations.

e) Improve the functioning of Family Courts and strengthen educational/gender sensitive inputs in the training of legal professionals, the judiciary and police functionaries.

f) Increase support to women's organizations and NGOs in the campaign against discrimination and for setting up institutions that assist women victims of violence.

Scope for People's Initiatives

- Set up or liberally support legal aid centres at the district level and support groups at the local level.
- Create gender sensitive cultural items, plays, songs; organize kalajathas for dissemination, especially women's cultural troupes to be encouraged.
- Encourage programmes, which organize women in different ways, around different issues. Organising women *per se* is empowering and resists violence.
- Support and strengthen existing women's organizations and participate in their anti-violence activities and campaigns.

ISSUES OF SEXUALITY WITH SPECIAL REFERENCE TO HIV/AIDS

Dr. T. Sundararaman

Why address sexuality issues?

It is now generally recognized that the AIDS problem cannot be contained by merely giving a public call for monogamous relationship and condoms in all other situations. The continued spread of AIDS epidemic despite a fairly early start to propaganda on this issue and now as we know a fairly high awareness of AIDS testifies to the limitations of this strategy. It is increasingly accepted that unless a better understanding of patterns of sexual behaviour is developed, and this understanding is made the central point of preventing risky sexual behaviour this epidemic cannot be contained.

This is not the only reason to address the issues in sexual behaviour. Much of the population control measures that address spacing or for that matter any temporary method of contraception requires as its basis an understanding of sexual behaviour. The presumption that women have many children because they are ignorant or that they want to have many children is faulty. It is just that they do not have must control over their bodies and though they bear the children the decisions regarding child-birth are often not made by them.

Sexual behaviour is also important to understand for addressing the vast varieties of sexual disorders. Just witness the flourishing quack trade in sexual counseling so visible at every railway stations and bus terminus, and we can gauge some extent of the problem We can also understand that such anxieties and disorders are not adequately handled within the medical profession- or why else this descent of this problem alone to the streets.

Sexual life styles also become important in understanding social problems like that of commercial sex workers or sexual harassment and violence. The spread of these problems points to an increasing problem of sexual health.

Despite so many already existing reasons for addressing this area, it is the emergence of AIDS that has brought study of sexual behaviour to the forefront and given it a new urgency.

Determinant of Sexual ill health

There are many issues in this area. We focus on a few related to gender stereotypes:

a) Whilst there are a number of gender roles that are desirable and even essential, a number of roles are imposedas a result of patriarchy. Thus for example, women are portrayed as gaining fulfillment only from the roles of mother and wife. Her work is portrayed as inherently inferior and worthless than that

of a man. They are seen as emotional and required to be silent and suffer injustice quietly is seen as an ideal. In sexuality the major stereotype is the portrayal of womens bodies as shameful-not only the genitals but the whole body. Body contact even in games becomes toboo. Women are portrayed as having less sexual desire. And talking about sex or expressing pleasure in it is of course completely frowned upon.

b) In many communities woman is considered as the property of the man- be it father or husband. Thus marriage is fixed for her without her consent. Her *un-spoilt* fresh status is a mark of good quality property and a reason for early marriage. (Though no such restriction is seen as necessary for the male.) After marriage the man has the right to use her body, and consent is often not required.

c) The male stereotype centres around the myth of an aggressive sexual urge and sexual prowess. The great fear of the man is loss of manhood or sexual inadequacy in any form. A very high and unreal expectation of himself leaves him frustrated, often getting diverted into violence-the next nearest manly act. Thus fears of regular loss of semen, of masturbation, of size ad shape of genital organs all are related to this fear of sexual inadequacy. Fear about not being able to satisfy, especially on the first night, or fear or decrease of desire that occurs with middle age or the lack of desire within a long routine monogamous relationship are all reasons that spur men into unsafe sex. Just like women cannot due to *Shame,* talk about their sexual anxieties, men too cannot for fear of being exposed as 'inadequate,' talk about their equally, if not more, numerous sexual fears and problems.

Gaining control

The cornerstone of sexual health is the end of oppressive relationships between the genders. Conversely the fight for sexual rights is part of the struggle against women's oppression. Since this term is capable of many distortions one must explain further.

Control over sexual life for a woman includes

- Choosing her sexual partner
- Negotiating when to and how to have sex.
- Deciding if and when to become pregnant
- Using all measures needed to be secure from getting STDs
- Being free from sexual violence, especially forced sex of any sort.

The approach to women and men gaining sexual health lies in promoting interventions that aim for

a) Safer sex to reduce chances of unwanted pregnancies and STD

b) Changing gender roles to avoid harmful belief and promote positive beliefs

c) More pleasure in sex. This is dependent on the warmth of the relationship between the two outside the sexual act. Within the sexual relationship it depends on relief from stress, exhaustion, hunger, the availability of privacy. It also depends on avoiding gender stereotypes that are internalized by both sexes and that deny a healthy relationship.

If such control is gained and the sexual relationship ceases to be oppressive then it is possible to contain the spread of disease and promote responsible relationships.

Special groups

One can also study subcultures as for example in lorry drivers, and understand why such groups are prone to high-risk sexual behaviour. Without better understanding of such dimensions it is impossible to contain AIDS.

The problems of commercial sex workers are of a different category. Though they also arise from the unequal and unjust relationship within the sexes. How does one contend and limit this form of risky sexual

behaviour without punishing the victim? This question too must be addressed. We have invited representatives from such sections to inform us abut their problems and how they cope and what forms of assistance they require, we know too little about them to say anymore.

Conclusion

The authors of this paper do not share the view that too much is being made of the AIDS problem. We sincerely believe that it is one of the biggest threats to health that society has ever faced. We only contend that the current approach centreed around a vertical programme focused on one or two simplistic messages is going to waste a lot of money without even making a small dent on the problem.

We hope that this workshop contributes in a small way to developing alternative strategies centreed on a better understanding of sexual health and the causes of risky sexual behaviour.

ENVIRONMENT & HEALTH

Environment and Workplace Injury
Is there a solution for the colossal loss?

Dr. Sagar Dhara

More Indians die because of three types of injuries — workplace fatal and non-fatal physical injuries due to accidents, occupational diseases due to toxic exposures at the workplace and health effects caused by environmental exposures — than due to all other manner of man-made violence - be they on India's borders, in comunal and political violence, in crimes, and so on. Yet, this problem has gone un-noticed and unaddressed as workplace injuries are grossly under-reported and environmental injuries remain un-estimated.

Of the three types of injuries, published statistics, for what they are worth, are the best for workplace accidents. A recent issue of the Ministry of Labour's (MoL) Indian Labour Statistics reports an average annual incidence of 1,400 fatal and 100,000 non-fatal accidents in non-domestic workplaces.

The same document also provides fatal and non-fatal injury rates for the workforce for which accidents are reported. Based on these rates, fatal accidents can be estimated to range between 50-75 thousand and non-fatal accidents 5-7.5 million per year for the entire workforce in India. If mortalities due to all causes were considered for Indian workers in the age group 15-60 years, workplace fatalities contribute premature deaths in this population to the extent of 5%.

Published statistics for occupational diseases are more meagre and difficult to believe than those for workplace accidents. Past issues of MoL's Indian Labour Year Book report an average annual incidence of new occupational disease cases of about 90 during the 1970s and early 1980s. Jawaharlal Nehru University's professor Qadeer disputes these figures. She estimated that the number of new cases in just three industries (asbestos, cotton textiles and lead) to be in the region of 40,000 per annum. Interestingly, recent MoL's publications have stopped reporting the incidence of occupational diseases altogether.

The large difference between reported and estimated figures for workplace injuries (accidents and exposures) are because injury statistics are available only for factory workers, who form 3% of the Indian workforce; statistics for all states are usually not compiled; and under - reporting of injuries is very high.

Statistics or estimates of health effects due to environmental exposures are virtually non-existent in India. The Kamat study, the first and almost only study of its kind done in India, found that there was approximately 15% excess illness in highly polluted areas of Mumbai in the late 1970s. The Central Pollution Control Board's latest release of air quality data indicate that 68 out of 70 of India's major urban areas, accounting for 25% of India's population, are at the same or over the pollution level classified by the Kamat study as high. That translated to 37.5 million air pollution-related excess illness episodes per year. Though this figure sounds startlingly high, a recent Down to Earth (DTE) report corroborates it. Based on a World Bank (WB) document, the DTE report updates WB estimates of the annual disease burden due to suspended

particulate matter (SPM) in air at 25 million excess illnesses and 52,000 premature deaths in 36 Indian cities for the year 1995.

Estimates of disease burden for water, soil, noise and other air pollutants are not available. The statement made by Thackery, a former Maharashtra Chief Factories Inspector, “Non-detection for want of competent examination is being interpreted as non-existence of occupational disease in interested quarters” rings as true today as it did three decades back when it was made, not just for occupational diseases but for all environmental and workplace injuries.

If the burden of occupational diseases is considered to be at least as much as that of workplace accidents, the estimated annual burden of disease due to environmental (SPM only) and workplace injuries would be at the very minimum of the order 2 lakh premature deaths and 50 million excess illnesses. If other air pollutants were considered, the number of premature deaths may well be of the order of more than 3 lakhs/year; which is still well below the 10 lakh/annum estimate made recently by Anil Agarwal for environmental exposures alone.

Clearly, the absence of reliable statistics and epidemiological studies (the study of disease prevalence and causation) has reduced estimating environment and workplace injury to intelligent guesswork.

Who pays the cost?

Workplace and environment hazards are flipsides of the same coin. Both are caused by dirty and unsafe technologies and work methods. The colossal injury they cause can be reduced by investing in control systems to make industry cleaner and safer, and R & D to design better products. While an estimate of what this amount may be does not exist, a recent study by Administrative Staff College of India provides clues for what it may cost one sector (Rs. 25,000 Crore) to abate environmental pollution for new thermal power capacity to come up in AP over the next 15 years. The Indian Industry's cleanup cost will be many 100 times more.

In the absence of a strong push to invest in environment and safety systems, the short-run ‘least-cost’ option for industry and government is to externalize costs onto people, which ultimately take the form of ill health and premature deaths.

The estimated annual monetary loss due to environmental SPM-exposure related fatalities and illnesses, according to the DTE report, was Rs. 4,500 crore (the cost of a 2,000 MW power plant) for 36 cities. If the same costing norms are applied for workplace and other environmental health effects, the annual monetary loss would be of the order of Rs. 30,000 crore per annum, ie, one-tenth the 2000-01 union government's budget.

Natural justice seeks compensation for any form of injury. The law of torts has been used effectively in north nations to obtain large settlements for workplace and environmental injury. W R Grace, a US company, recently paid an average settlement of a million dollars to each of eight leukamia patients because it had dumped trichloroethylene into drinking water of Woburn, a small town near Boston. Each of the 10,000 asbestosis-related deaths reported annually in the US is also settled for similar amounts.

In India, settlements for environmental injury have virtually never occurred, and for workplace injury are woefully inadequate. In the early- 1990s, the average settlement for workplace fatal and non-fatal injuries made by the Workmens' Compensation Commissioner was Rs. 7.5 crore per year, ie, 0.025% of the estimated monetary loss caused by workplace and environmental injury. Each workplace fatal injury was settled for an average amount of Rs. 50,000, each serious injury for Rs. 20,000 and each temporary disabling injury for Rs. 1,500.

Three devices for immediate relief

The high levels of premature death and excess illness caused by polluted environments and unsafe workplaces, which have persisted for the last two decades, can only mean that regulations governing them and regulators have completely failed the Indian people. If India aspires to become a global economic player

on the gain maximization side, it cannot afford to have such high attrition levels and must pay attention to risk minimization. Drastic measures are now required to bring down injury rates. And though no quick-fix solutions exist, three devices will help mitigate them in the short run.

First is the use of the economic carrot and stick method. If injury settlements become more expensive than investment in control systems, dirty and unsafe technologies and products will be retired in favour of cleaner and safer ones. This happened in the North nations in the last three decades. For example, compensation for asbestos-related injuries, which runs into hundreds of thousands of dollars per case, forced Johns Manville, the largest asbestos conglomerate in the US till the 1980s, to roll down its shutters. This story will repeat itself in India, provided there is the political will to allow it to happen.

While the North nations used tort law to obtain large compensation amounts for human injury, clogged courts and creaky bureaucracy in India cannot provide justice quickly. It took a wheezy and ailing Rajagopolan, an ex-employee of Hindustan Ferodo, a lot of courage and perseverance to win the first asbestosis compensation settlement in India. Fifteen years of litigation where he repeatedly appealed against being diagnosed as suffering from bronchitis and bronchial asthma left Rajagopolan Rs. 21,000 richer a decade ago, but also exhausted. If Rajagopalan was handicapped in doing lone battle, class action has fared no better. Monetary disbursements are still currently being made, even 11 years after the court-assisted settlement for the Bhopal gas tragedy victims.

A good start to increase settlement amounts and reduce payout time is by increasing the relief amounts payable to offsite industrial accident victims under Public Liability Insurance (PLI) Act by 150 times that currently specified under the act, and making these amounts a part of the total compensation, that may be part of court decree or a mutual settlement. Lengthy adjudication is avoided as strict liability applied to cases that come under the PLI act and disbursement of relief amounts is quick as it is decreed by the district collector. Relief amounts for a fatal accident or permanent disablement will increase from Rs. 25,000 to Rs. 37.5 lakhs. Even at this level, it works to less than one tenth the average amount received by similar cases in North nations. An automatic increase of 5% per annum in the relief amounts should be allowed for 50 years.

This move will push up insurance premiums and push out small units from handling hazardous substances, which are least interested in investing in control systems. It will also push up injury settlements not covered by the act, whether by statute or by court order.

A complementary devise is to link insurance premiums to risk assessment and provide tax breaks for facilities which can publicly demonstrate a reduction in the risk they pose. Insurance companies will then force industry to do better risk analysis studies, including human and material resource capability assessment.

Higher injury settlements will have another very beneficial fallout for Indian industry. Risk reduction through technology and product upgrades, which implies loss prevention, will make Indian industry more competitive in global markets.

Second, if the system has failed them, people must offer non-violent satyagraha, as they did a 100 years ago for independence, to reclaim good health—the right to participate in the management of their work, leisure and rest environments. After all, risk bearers have the biggest stake in reducing risk, and therefore the maximum potential motivation to do it.

It will take time and effort to re-orient the existing top-down environment and safety management system. But a beginning can be made in gradually increasing public participation in environmental management and labour participation in safety management, e.g. by making it mandatory to consider comments from public and labour while doing all manner of environmental and safety studies, by allowing public participation at all decision-making levels while granting or renewing environmental consent and in inquiry commissions, by allowing for public plant inspections on one day in a year, by making it mandatory to report environment and safety management practices in a firm's annual report.

Third, one of the prime requisites for people's participation in environmental and safety management is information, which today is not available in the public domain. The law requires risk information about

major accident hazards to be communicated to public, but this has rarely been done for fear that it will raise 'needless' questions. It is time to realize that more public information will only help reduce risk, not increase it. Besides, if a patient, has the right to know that ailment s/he has, a potential patient has the right to know the environmental and workplace risk s/he is being exposed to and the remedial steps required.

The first step then is to put all environment and safety documents with government agencies into public domain, including studies done for site clearance including costing of externalities, plant audits, consent conditions for operating facilities, violations of consent conditions and citations, monitoring data and studies conducted by government agencies, material safety data sheets, government policy statements, government schemes and plans, international agreements signed by India, background information for setting standards, toxic import, storage and release inventories, etc. The only exception to this being documents which compromise the nation's security or a person's rights under patent laws.

Right to information will work only when accompanied by a search engine which guides a searcher quickly to the information s/he wants. The design of computerized and non-computerized search engines is beyond the scope of this article, but it is worth mentioning that the Andhra Pradesh Pollution Control Board has taken a step in the right direction by asking industrial units to publicize on boards at its main entrance information regarding its consent conditions, the latest environmental monitoring data and hazardous storages and the area that will be affected if a worst case accident happens.

Moving forward proactively

Some blame today's "exterminist" technologies for environment and workplace risks. But, many of yesterday's inventions, e.g., fire, the wheel, gunpowder, etc. could be ranked with the worst of today's "exterminist" technologies. Yet, they played a locomotive role in human development. Technologies and products play a major role in causing environment and workplace risks. Their choice is linked to human consumption patterns, lifestyles, economic process and cultural mores.

Making technology choices is complicated. Author Barry Commoner dealt with this issue very adroitly in one of his talks. He reminded his audience that the petrochemical industry provided both the artificial heart valve and chlorine-bonded hydrocarbons, which are invariably carecinogenic, and then asked whether the petrochemical industry should be dismantled. Commoner, however, left it to his audience to figure the answer. There should, therefore, be more public debate regarding technology choices and their implications.

Technology impact assessment is inherently information intensive. Where information is not forthcoming, people should take the initiative to collect it. A good beginning was made in this direction by a recent experiment conducted in Parasia, a coal town in Madhya Pradesh. School children were taught and made to monitor the water quality of various sources in their town for 6 months. They then compared their results with the perceptions of the water source users. As the findings of the study become widely known, they became the talking point in the town. The experiment created tremendous interest in environmental issues amongst the school children.

Transformation of system are, perforce, slow and dialectic. If environmental and workplace risks are to be reduced, the solution does not lie in positing idealistic "back- to - nature" scenarios. Today's agenda for a better tomorrow lies in charting a course for transition form less-friendly to more-friendly systems, with the details of every steps worked through to the limits of our current knowledge and wisdom. This is not easy, particularly when public involvement is not just desired, but absolutely necessary for a successful risk minimization programme.

MENTAL HEALTH

Community Care of the Mentally Ill

Dr. R.L. Kapur

Introduction-The burden of mental disorder

The term mental disorder covers a wide range of conditions which share in common an experience of psychological distress and social dysfunctioning, either by the affected person, or those around him, or both. On one end are syndromes, which are definitely due to neurochemical imbalances or structural changes in the nervous system. Schizophrenia, Bipolar mood disorders, Dementias and certain categories of mental retardation come under this category. There is sufficient evidence that at least 2% of the population, whether in the industrialized nations or in the developing countries, whether in urban or in rural conditions, suffer from the effect of these illnesses. While a number can be treated or managed with appropriate medication, at least one third end up with chronic disability needing financial and social support for their existence.

At the other end are conditions, which reflect a break down of vulnerable persons in response to environmental stresses. Anxiety, depression, vague somatic symptoms are examples in this category. It is estimated that 8-10% of population suffers from these conditions. Poverty and hunger are perhaps the biggest stressors. So is being a woman, or a member of lower castes, in hierarchical societies like India. Increasing urbanisation and dislocation, which are directly related to economic development programmes in poor countries, are other social stressors. There are enough research studies linking these factors with mental ill health, well summarised by Patel (forthcoming). There is also evidence that suicide rates, which are arguably the clearest indicators of mental stress, are high in India and constantly rising (Shah 1996).

Closely related to these stress-related psychological disorders are conditions like alcohol and substance abuse which are the resultants of a complex interaction between stress related demand, government promoted supply (in case of alcohol which brings excise revenue) and criminal promotion (for other drugs, which are banned). Here, psychopathology merges with Socio-pathology.

The rates of alcohol consumption and alcohol addiction, of course, vary across the county and the rates of alcohol dependence vary from 1-15% (ICMR-CAR-CMH 1990) to 15-20% (Bang and Bang 1990). According to one report, the rates of alcohol consumption are rising by 15% per annum.

According to a World Bank report, 8.1 of the DALYs— a DALY being the disability adjusted life years, which is a measures of burden produced by specific disease— are lost due to mental disorder. This burden seems to be equal to, if not more than, that produced by diseases like tuberculosis, cancer and heart disease. Another 34% of the DALYs are lost due to such physical diseases where behaviour related factors play a part e.g. heart disease, lung cancer and sexually transmitted diseases.

The care of the mentally ill

There was no tradition of institutional treatment for mental disorder before allopathic medicine entered India with the Europeans. The first mention of a mental asylum is in the records of Bombay Presidency 1745-46 (Weiss 1983). The number of mental hospitals was nineteen at the time of Independence. It has currently risen to 45 with a bed occupancy of 21,147 (Central Bureau of Health Intelligence 1992). The conditions in these hospitals is, on the average, very poor. Except for a few, which can be counted on the fingers of the hand, most institutions are poorly staffed, poorly resourced and poorly motivated. The food, clothing and living conditions are abysmal. As recently as 1999 a workshop was held in NIMHANS, in Bangalore, to address the problems of these institutions and to issue some recommendations (NIMHANS Report 2000).

Early in the 1960s and 70s it was beginning to be realised that long term institutional care of all the needy mentally ill was neither possible nor desirable. The answer was de-institutionalisation and community care. The following paragraphs describe the story of how the experiments in community care of the mentally ill have proceeded, along with discussion of issues, which still need to be tackled.

Community care of the mentally ill

Fifty years ago, if someone had talked of community based programmes for mental health care, he would have been considered over ambitious. At that time, the best we could hope for was compassionate custodial care within the four walls of a mental asylum. These ill people were left there, often for life by their relatives and community, who would then forget about them. It says a lot for the progress made over the years, even in our country, that we talk not only of treating mentally ill patients in their own surroudings, but also of involving the community in preventing as well as in promoting mental health.

The beginnings

It has become customary, and quite rightly, to begin the story of community psychiatry in India with Dr. Vidya Sagar (Kapur 1971) who, in the late 1950s started involving family members in the treatment of the mentally ill admitted to the Amritsar Mental Hospital. He did this for purely practical reasons; he had a 900-bedded hospital which was extremely short of staff. He put up army surplus tents within the precincts of the hospital, and the relatives who brought in new patients were requested to stay on to assist in providing nursing care.

Subsequently, when asked to analyse the impact of his innovation, Dr. Vidya Sagar felt that the exercise achieved much more than he had initially hoped for. First, it reduced the hostility in the minds of the patients of having been abandoned in a strange place. Secondly, when the family started seeing the patients getting better, it helped to remove the age-old myths about the incurability of mental illness. Finally, by taking group sessions, the relatives learnt the essential principles of mental health and were thus motivated towards improvement in their own ways of life. I was one of those who assisted Dr. Vidya Sagar in this experiment. What I remember most vividly is that many patients actually went back with their families and that the discharge statistics began to rise. All this happened before the era of major tranquillizers.

Tranquillizers

The entry of anti-psychosomatic drugs in the late 1950s and early 1960s so dramatically controlled the agitation, aggression and withdrawal tendencies of the patients that it became possible to treat the mentally ill in general hospitals. Once again I was a participant in the new revolution, involved as I was in setting up a general hospital psychiatric unit in a medical college hospital during the mid 1960s. What I remember most is the surprise of the other hospital patients that the mentally ill were in fact like any other people and responded to medical treatment. Even more interesting was the new sense of confidence in psychiatrists and a visible rise of their status amongst their fellow professionals. More and more graduates started taking up psychiatry as a career. Currently there are about 200 such units in the country (Murthy 1992).

Psychiatric camps

The next logical step towards involvement of the community was the practice of holding psychiatric camps in remote villages (Kapur *et al* 1982). The reasons for holding such camps were the difficulty of taking patients to distant hospitals and the cost of travel. However, the main achievements of these camps were the involvement of community leaders and neighbours in the therapeutic process and reducing the stigma of mental illness. When one family was willing to have its sick member treated openly, it was easier for others to follow.

Further advances were the setting up, during the mid 1970s, of the National Institute of Mental Health and Neurological Sciences(NIMHANS) in Bangalore and the Post Graduate Institute of Medical Education and Research (PGIMER) in Chandigarh, where there were programmes to teach doctors and health workers in the primary health centres the skills for early recognition and management of mental illness (Kapur 1979, WIG et al 1981). The reasons for starting such programmes were practical; the country just did not have, nor was likely to have for decades, the necessary specialist staff to deal with all its severely ill psychiatric patients. What these programmes achieved, more than anything else, was the demystification of the phenomenon of mental illness. It was made obvious that a non-specialist doctor or a village health worker

could do, after a short period of training, what previously only a highly trained specialist was expected to accomplish.

The success of these programmes was internationally recognized and they were emulated elsewhere both within and outside the country. The demystification process was carried forward at NIMHANS where the community members have been trained to recognize and follow up mentally ill patients (Rao et al 1990). NIMHANS also adopted a district in Karnataka to further develop this programme (NIMHANS Bulletin 1988). Parallel with the rural progress have been the developments in urban settings where general practitioners, school teachers and lay volunteers are being trained to recognize and manage mental illness (Sham Sunder et al 1978, Kapur M. 1988). There is still the problem of numbers. With 2% of the population suffering from severe mental disorders a great amount of time, effort and money is needed to spread these programmes across the country. However, this change which has taken just 40 years, has produced an upbeat feeling in the minds of mental health professionals. But the picture is not rosy.

Firstly, it has been descovered that while these training programmes run will in research situations, when tested in unsupervised situation they do not do so well. One study (ICMR, 1987) which aimed at testing the impact of training the PHCs then leaving them to detect and treat the patients, showed that in fact the results were poor, both with respect to recognition and management of the patients. The main cause of poor response was poor morale of PHC staff and their preoccupation with other vertical programmes, like family planning.

Secondly, the success of such programmes, in best of conditions, also depends on the support and care which the family can provide. One is not sure whether the families in a situation of fast social change can be depended upon to provide such support.

Family and the care of the chronically ill

In the 1960s a programme was stared in the USA and subsequently in other western countries to treat mentally ill patients outside mental hospitals. This programme was started, not because there was a shortage of mental hospitals but because of the new knowledge, which showed that long-term hospital stays could lead to chronicity. The programme involved the setting up of half-way homes, hostels and, most importantly, the treatment of patients in their own family settings through follow up visits by nurses and social workers. It was soon discovered that even rich western nations did not have sufficient funds to run the half-way homes and the domiciliary services. Above all, the family was just not willing to keep the patient. The result was that the patients were coming back to the hospitals through a kind of revolving door situation and if the re-admission policy was strict, they became homeless and roamed the streets. As recently as 1985, I saw disturbed psychiatric patients walking about in parks around Harvard University. I also read reports of patients who were violent on the streets and some who died of exposure. My first reaction was self--congratulatory. “Are we not so much better off in India where the family is willing to look after its own?” This reaction was short-lived because I soon discovered that a western family was not so much unwilling, as unable to do the caring. With the nuclear family being the norm, all able bodied people going to work and children going to school, who would look after the patients during the day or even at night, following a hard day.

Family care in India

The tide is turning in India as well. There is an increasing migration to the cities, a gradual diminution of family size and fewer people available to stay at home to look after patients. Is it likely, even in India, that people will continue to look after the mentally sick when other patients. Is it likely, even in India, that people will continue to look after the mentally sick when other pressures increase? The process of social change is going to become faster with the new economic philosophy. I am afraid that family support is not going to be as easily available in the future and if the community is interested in the welfare of the mentally ill, it will have to think of other means.

The writing is already on the wall. Wherever half-way homes for the chronic mental patients are available, they are running full and have long waiting lists. This, in spite of the fact that most places charge amounts which are more than the annual incomes of average Indian families. As I worry about this, I am appalled that almost all the mental hospitals of the country are vying with each other to give up their asylum function; the shorter the stay of the patient in the hospital, the more modern and scientific they are supposed to be. The space and services, which were reserved for chronic patients in the old fashioned hospitals, are dwindling away rapidly.

Just as 20 years ago, when we started innovative programmes for the treatment of the mentally ill, we must now start developing innovative programmes for the care of the chronic mentally ill patients. Before accelerating social change forces the family to deposit its chronic patient on the road, we must start planning for a roof over his or her head and arrange food, clothing and some recreation, to put some meaning into his life. This is too big a task to be left to the private sector. In spite of all the efforts in the last 10 years, there are only about 250 places for chronic mental patients in private establishments. The funds required for even the minimal care of non-productive chronic mental patients are massive. The government will have to shoulder the responsibility and the planning process should start immediately. It is in this context that the giving up of the asylum function by the mental hospitals, which posses a lot of space as well as a fair number nursing aides, seems so irresponsible.

Common mental disorders

Epidemiologists will claim that while the prevalence rate of psychoses is 1%, that of neuroses is 8% to 10%. This is perhaps true but if we include conditions such as substance abuse and personality disorders of various kinds in this category, the percentage will be even higher. It is also true that at least one-third of the patients who go to non-psychiatrists, suffer from psychological rather than physical illness. However, these conditions are not diseases in the usual sense of the term but an expression of their inability to cope with the difficulties of life. Most of these patients require psychotheraphy and social intervention rather than medicines or surgery. Unfortunately, there has been an increasing 'medicalization' of distress. The average doctor has neither the time nor the basic skills to deal with the stress, which has made the patient seek his help, and finds it convenient to prescribe tranquillizers. These, of course, work only temporarily and if used for a long time lead to dependence and abuse. What the patient needs is help in developing sensible coping strategies.

There was a time when society offered different kinds of support measures to the stressed, in the form of family elders, village mantarwadis (sorcerers) and temples. Stories from folklore and mythology were used to rouse a person to a meaningful existence in the face of life's trials. There were clear-cut values to live by. Social change has diluted these values and the stories which were effective before, now appear to be naive and irrelevant. The situation is much worse in urban slums where the sense of alienation is even greater and social support less. What kind of community effort is needed to devise new social values and supportive links? Tranquillizers are not the answer and what we need urgently is an effective community education programme to fight the excessive use of these drugs. We must also focus on the drug company-general practitioner axis and counter the pressure that the companies exert to prescribe their medicines, a pressure which is in the form of subtle and not so subtle inducements.

Role of the mass media

The media can obviously play a big role in the management of mental illness but unfortunately what one often sees behind an exercise is an attempt to titillate and shock at the cost of someone else's emotional pain. Education about mental health is a task of great responsibility and, before anything else, media persons who undertake this should themselves learn about the complexity of the human minds and the multifactorial nature of emotional disorders. What is required is a sacred partnership between professions and media persons, each giving and receiving an accurate feedback on this sensitive issue.

Promotion of mental health

The promotion of mental health is too important a matter to be left to mental health professionals alone. There is a lot in our spiritual heritage as well as in textbooks of psychology which shows that faith and a life style compassionate to others can increase our stress tolerance. There is also evidence that consistent parenting and a schooling which provides meaningful challenges, without oppressing the child, can prevent the occurrence of mental disorders in later years (Kellam 1994). These principles strike at the very root of the civilization, which we see today— a civilization, which is built on the edifice of greed and competition of power. Will this civilization destroy itself? We can see the difficulties involved when plans to cut down the depiction of sex and violence on the cinema and television screens meet with resistance, even when there is fairly conclusive evidence that symbolic violence of this kind promotes real life violence (Newson 1994). Good wishes and education programmes are not enough; we need firm political action.

AROKKYA IYAKKAM (HEALTH MOVEMENT)

The Peoples Science Movement Attempt at
Health Action Model Building: A Profile

Introduction

This was the name of the health programme that the TNSF/BGVS undertook— initially in 120 villages spread over 2 districts of Tamilnadu (60 villages in Ramnad district and 30 villages each in Kandili and Nemili blocks of Vellore district) and subsequently expanded to 400 villages in 11 blocks of 6 districts. This programme arose and was guided as a BGVS initiative to follow up to the literacy campaigns. The BGVS sees it as a potential 'model' for future replication. A similar programme was also attempted in Bihar in 3 districts, though, it achieved its full form in only one district due to fund constraints and other organisational considerations. Jehanabad was however an excellent learning experience.

Objective of the Programme:

1. Promote awareness on health issues.
2. Improve the utilization of existing primary health centres and government health programmes at the village level.
3. Demonstrate measurable improvement in some health indices, the most important of which is child malnutrition measured by weight for age.
4. Use intervention in health as the first step in building on women's movement.
5. Use intervention in health to build panchayat capabilities not only in health care and other areas

The Appraoch: There are five corner stones to our appraoch:

1. *Forming village health committees and women committees around a village health activist.* The activist is selected by the programme team in consultation with the community. The activist, supported by the committee, carries out many of the functions that the programme requires. But most important is that she keeps the committee together and keeps in contact with the district team.
2. *Full time cadre:* Proper training and support to the health activist and the committees requires a cadre of full time paid workers-about one per 10 health activists. This woman is highly motivated and can train as well as organise at the village level. Starting as employees they emerge as leaders of the programme and the women's movement that grows out of it. Training camps amounting to about 15 to 20 days in a year are essential to build about motivation and skills. However the main skill building for the health activist occurs through working together with the health full-timers.

3. *Linkage to existing and created women's movements.* If there is already a vibrant women's movement in that area the health activists are chosen and supported by such a group. If on the other hand there is no such movement, by linkages to credit cooperatives and other women's issues a movement is created.
4. *Linkage to a district resoruce team:* Made of few doctors, teachers and other salaried employees, this group acts as resource persons and they come in handy to negotiate with government and panchayts for better outcomes.
5. *Support from government and from panchayats:* We arranged for letters of support and coordination on many activities from the government. This brings about better coordination with the PHC by enabling the sincere staff to actively cooperate and this in turn helps better acceptance from panchayat leaders and the public to our campaign. However even without such support the programme is viable, though less effective.

Activities:

1. Maintenance of a single community health register which records basic demographic data — a list of children under five, the nutritional status and all the services they have accessed, vital events and disease outbreaks. This register is transformed into a powerful tool of understanding health status of planning for health locally and of assessing the impact of one's own programme interventions.
2. Planned facilitation of the ANM, and the PHC in their function by organizing people to make use of the services. Thus when the ANM visits the villages, children are brought to her for immunization and the health activist accompanies her on her rounds. Another way of effecting better utilisation was acting as depot for ORS packets and other simple emergency medicines, and even for contraceptives where such a request is articulated by people. (Most ANMs and about half the doctors actively supported and encouraged such cooperation. Those who were often absent or negligent could be hostile to such help and often complaints were registered against them or by them against us too!)
3. Based on an identification in the register of all the children at risk — that is those who have malnutrition (grade I to grade 4), family visits are organised to dialogue with the family and in a non-prescriptive manner, educate them on illness prevention, dietary intake and child care measures including access to PHC provided services which will reverse malnutrition and prevent mortality in these families. To these children at risk are also added all the children between 4 months of age and 1 year of age, even if they are normal, for it is well documented that interventions at this stage prevent malnutrition from setting in - and such prevention is easier than reversing malnutrition once it has occurred. Since this will amount to visiting almost half the households (and in places like Bihar almost all the households) the intensity of intervention at the local level is high.
4. Where diseases like tuberculosis or/ leprosy represented a problem, a case detection camp was organised. Prior to the camp for a half-day, trained group of volunteers would visit each house and check whether anyone had any of the four cardinal symptoms of tuberculosis(of leprosy) and depending on how many of the for each had would grade them into categories that indicated the likelihood of it being tuberculosis. On the camp day it would be ensured that they visited the doctor/health worker. The camp would be publicised and conducted by the panchayat and would be called a respirator diseases camp or skin diseases camp (instead of as TB or leprosy camp!) After the camp they would be followed up by the group till investigations are completed and a diagnosis achieved. (this is the most difficult part). After diagnosis follow-up to ensure completion of treatment was easier. Interventions during diarrheal outbreaks were also organised through such groups.
5. The health activist was also given a four day training, repeated twice later, on simple symptomatic first contact care using both a kit of 25 medicines and home remedies. The list of 26 was made to be compatible with stated drug supply in the PHC and the drugs were procured from the sub-centre (as part of drug depot scheme) or occasionally from the panchayats with their funds.

Not all these above 5 activities took place in all villages or even in all districts. Depending on the strength of the programme and the quality of support that could be organised and depending on the degree of cooperation with the government sector, various activities were introduced. The order of introduction was in order of priority from I to 5. Thus in Jehanbad and Madhepura only the first three could be carried out of which in most villages only the first two was effective. Whereas in Nemili all five activities could be carried out when the programme was at its peak. However even here, two years after the project period, in its non-funded continuing form, only the first three activities continue extensively.

The Achievements (based on Internal participatory evaluation):

1. The first objective (Health awareness) was realized in a major way even if it is difficult to quantify. Our own participatory assessment lists it as the most important thing happening and notes that had we called for only an awareness campaign and not an intervention campaign, the awareness campaign could not have been even a third as effective. We also note that the awareness was not only in so called health and disease aspects(though this was the focus) but extended to learning what was the services available in PHC and what should be asked for. For example petitions and representations for administrative action on a number of issues was given in from time to time.

2. The second objective (better utilisation) was also realised almost completely where cooperation could be established between health centre and our programme. This is more dramatic in a place like Jahanabad in Bihar, where immunization, Vitamin A delivery, de-worming tablet access etc. increased three to four times. But even in well administered PHC programme like in Tamilnadu the improvement is visible. In about 25 percent villages however cooperation could just not be established and in another 25% it remained weak.

3. The third objective was also reached in most of the villages of the first phase programme in Ramand and Vellore districts. Even in Bihar there was a considerable improvement. Absolute levels of malnutrition came down and child by child improvement studies showed that the majority of children had benefited. (children were weighed thrice in 18 months). We however note that in a umber of villages there were programmes failures due to non functioning of the health activist and committee(remember that in our programme no honorarium was paid). These villages could also serve as controls. The data details will be presented. Since malnutrition is an index of all dimensions of child care the results are satisfactory and co-relate with other gains reported, but not quantified. Care of pregnant women, tuberculosis detection, water borne disease control etc had also improved but not in a clearly measurable way and with much less villages.

4. In all villages in Tamilnadu where a programme was sustained for at least six months after the project period a vibrant women's movement exists (usually a samata-AIDWA coalition). A women's movement that not only undertakes credit cooperative work but also addresses host of local issues and takes up issues of violence against women. Since there are many villages (about 30) in Ramnad where an active women's movement now exists even though the health activity has stopped. It is not clear whether sustenance of the programme beyond six months is cause or effect of the women's movement.

5. The fifth objective were the panchayats. They were engaged in discussion and about one fourths of them contributed meaningfully to the process. What was achieved in a more widespread manner is their awareness about the health status and the facilities available and some idea of what demands they should be articulating.

Sustaining the programme:

The programme had a minimal funding of about a lakh per year for about -50 villages coverage (10000 households or 50000 population). The main costs are in the training and in the full-timer support in the first year. After the 18 month project period the programme has been sustained in 15 villages of Ramnad (out of

60 villages); 30 villages of Nemili in Vellore and 12 villages (out of 30) in Kandili for over two years now. The poor sustenance in Ramnad and Kandili, the pilot areas, was due to a very dispersed choice of villages and late evolution of a sustenance strategy. Nemili which started later, has been able to do better.

The factors that are essential to sustenance are:

a) the continued presence and activity of the full timers and their taking on leadership roles;

b) the emergence of a women's movement with which the health activist and the leadership identifies. The sustenance of full-timers in turn depends on a good active credit cooperative movement from where at least half their salaries are drawn;

c) Meaningful support from a district team (of men) which is able to acknowledge the new leadership (of women) and yet help to raise funds and own responsibility for sustaining the programme.

Appendix

Table 1.

Malnutrition Data of below Five Children in 55 villages 26 from Memeli and 29 from Kandhili)

	No. in first weighing	%	No. in second weighing	%
Total wieghed	2750	100.0	2477	100.0
Normal	1343	48.8	1466	59.18
Grade I	871	31.6	726	29.31
Grade II	420	15.2	247	9.97
Grade III	105	3.8	33	1.33
Grade IV	11	0.4	5	0.01
Serious (Grade II-IV)	536	19.4	285	11.5

But this does not help us see improvements within the various grades of malnutrition. Also we do not know whether missing children in second weighing are more or less malnourished. Also new children are added in and already weighed children are not available. So we looked for child by child improvement and worsening. We rated every child improving by one or more grades as an improvement and those staying at normal or grade I also as an improvement. We then tabulated all children worsening in grade or staying at grade II, III and IV as a worsening. The table below gives therefore a more accurate picture of improvement.

Table 2

Grade Changes Over 18-Month period on a child to child follow up

	Between 1st and 2nd weighing	Between 1st and 3rd weighing
Children followed up	2750	2477
Not weighed in one of the two occasions.	754	977
Children followed up	1996	1500
improved	1620	1247
worsened	376	253

ACCESS TO HEALTH CARE - NEED FOR PARADIGM SHIFT

Analysis of available qualitative and quantitative data clearly shows extremely uneven health and development progress in various parts of the country. Often, this difference is so dramatic that one can hardly believe that they are part of the same nation and have followed the same development path for the last five decades. Even within the states which are doing reasonably well, there remain regions of darkness where little has changed since independence. Obviously, these parts of the country should be our major concern in the coming decades.

We are also living under two shadows-the familiar one of infectious diseases like malaria, tuberculosis, etc. - and in addition, the new and growing shadow of non-infectious chronic diseases like cancer and coronary diseases. The large widespread health infrastructure that has been set up throughout the country seems to be non-functional and unresponsive in many parts. Instead of moving forward to meet the newer health challenges, it is sliding backward. Over-centralized and lopsided planning, inadequate and unbalanced financial outlays, lack of accountability to communities, low moral values and, very often, dereliction of duty by medical and nursing professionals, plague the system. A thorough review of the National Health Policy and a total revamping and restructuring of the health infrastructure are immediately called for.

Due to the prevailing situation in the Government sector, there has been an unprecedented growth of the private sector, in both primary and secondary health care all over the country. Given the current ethical standards of the medical profession and totally free market technology-driven operational principles, the private sector generally does not provide quality health care at a reasonable cost. Before this sector becomes a public menace, it is necessary to introduce participatory regulatory norms.

The voluntary sector, though their overall presence is limited, is playing a significant role in reading out innovative and quality health services to the needy in remote areas. There is a need to create an enabling climate for them to grow further, especially in those pockets of the country where the overall health and development situation remains grim.

On the population front, two and a half decades of following an aggressive, unimaginative target-oriented approach does not seem to have produced the desired results — in spite of the huge investments made. The recently announced Population Policy is an important initiative to revamp the future effort for population stabilization. But in the last one year, in spite of setting up an over-populated National Commission on Population and several usual Seminars, Meetings in Delhi, nothing significant has taken place to make a dent on the ground reality. Although we have seen some very promising effort from the Ministry of Health & Family Welfare to broad base their activities as well as to build partnership with other stakeholders, including NGOs. Urgency of concerted and purposeful effort in the population front can not be overstated.

An area of distinct concern for the future is environmental degradation. Pollution levels in all our major cities have reached alarming proportions. We are just waking up to this major health threat. Almost half of the urban population does not have basic civic amenities. In the name of industrialization and development of our backward areas, we are polluting the limited sources of drinking water of local communities. The indiscriminate use of pesticides is a cause of serious long-term concern. Development projects like the Rajasthan Canal are carrying malaria to regions where it did not exist earlier. Non-degradable packaging material litter the country. Deteriorating environmental conditions are also eroding the health culture of our people. Public places and even the holiest rivers of this country are fast turning into garbage dumps.

Recently launched long-term programmes to meet some of the above challenges are mostly selective-large vertical programmes on AIDS, Malaria, Tuberculosis and Immunisation, principally supported by International Organizations. Convergence of these programmes with existing primary health care priorities would have had the possibility of revitalizing the primary health care infrastructure. It is very important to

review and recast these selective programmes. Often, these new programmes do not even follow the basic framework and priorities of the Five Year Plan document.

The grim tale of poverty and underdevelopment of millions of our citizens was brought home, time and again, during the visits of the Commission to Rajasthan, Uttar Pradesh, Orissa, Madhya Pradesh, Assam, etc. in spite of numerous well-meaning but centralized and unimaginative economic development schemes of the government, their socio-economic condition remains overwhelmingly distressing. We came across countless instances of communities putting up a brave struggle against all odds. Time has come for us to stand up and recognise this growing menace and change the direction of our poverty eradication programmes with a decentralized, imaginative and participatory model, as has been exemplified by many voluntary organisations. The economic development of one-third of our total population needs to be undertaken with appropriate inputs for their social development. Perhaps, in the health and development agenda of India, solving their problems will remain the most complex challenge for many years to come.

Within this generally depressing picture, we have also come across many heart warming experiences - the significant impact of the efforts of voluntary organizations and charismatic Government officials in the area of leprosy eradication. Tamil Nadu is a good example of a State where the health situation has improved significantly in recent years due to the multi-faceted development efforts of the Government. The city of Surat has been dramatically spruced up by local authorities after the horrendous outbreak of 'Plague'. We have also come across numerous imaginative, people-centered and effective health and development projects run by voluntary organizations. These examples give us hope for the future and indicate the direction in which the health and development paradigm needs to shift.

We have to look beyond the so-called predominantly reductionist bio-medical model of health care to a holistic model of health care which puts the human being in the centre. We need a disciplined conversation between the modern allopathic system and the traditional system, each checking and fertilizing the insights of the other.

The health of any nation is the sum total of the health of its citizens, communities and settlements in which they live. A healthy nations is, therefore, only feasible if there is total participation of its citizens towards this goal. In the last five decades, we have followed a path of social transformation which mainly relies on five major institutions, namely, the Parliament, the Assembly, the Cabinet, the Bureaucracy and Party functionaries. In the absence of mediating and reconciling agencies between the State and Society, the State lacks a base and remains remote and insensitive to people's needs. Unfortunately, our development efforts have not been rooted in our traditional institutions and community initiatives which exist in some form or the other throughout the country. Progress is easiest made if we are tuned in with the national genius which has developed over the centuries, with certain special traits. If it is ignored or discarded, it will lose its bearing and roots and gradually its vitality.

We feel that the nation needs to address this critical issue of continuing decay in the health and family welfare situation in the country. This calls for decisive action led from the highest level. Otherwise we might enter the 21st century as a nation with diverse unsolved ailments and chronic ill health. We are not condiment that things can be improved merely from internal policy analysis within Government, given the past unsatisfactory record in reforming and revitalizing the Health and Family Welfare Sector.

We strongly believe that external non-governmental inputs must, therefore, be invited to remove the cobwebs in present health policy, inject fresh ideas about a more just and caring health sector which does not reject the needs of our poor. Our report contains some contributions to this end; but we feel that the time has come to set up a central high level mechanism “such as a Technology Mission for revitalizing our health sector”.

The mechanism can work only with support from the highest level. It can work only by enriching what works and rejecting what does not, infusing fresh ideas and new dynamism based largely on our local wisdom and inter-national experience of problem solving. The Mission can also play a key role in suggesting that direction of health reform, in the light of the overall liberalization of economic policies by Government,

keeping always in view the distinguishing features of social, as different from economic development. It could also work out how health infrastructure can be decentralized, participatory, appropriate and accountable to the public at large.

The Mission can also play an important role in helping the National Institutions to redefine their role so that can play their originally perceived leadership role. After close interaction with the profession, especially those in private practice, the Mission can create an enabling climate for growth of quality, accountable and affordable medical care in the private sector. Another important task for the Mission could be to encourage growth and development of committed and dedicated Voluntary Sector to set up Health and Family Welfare services in the remote and difficult areas.

We feel that to provide a necessary cutting edge, such a mechanism should be under your esteemed office or under the Ministry of Human Resources Development. Our experience has been that the Ministries themselves find it difficult to bring about necessary paradigm shift since they cannot jump across their own shadow. Therefore, besides their own introspection within the Ministry at both Central and State level, the Mission can work as an important catalytic agent. The Mission can utilize the voluntary services of distinguished people from the field of public health and can be headed by such a person.

We feel that the continuous neglect of the health of nation can cost the nation dearly. We urge the Government to take immediate assertive action to arrest the current situation. Shri Aurobindo said, "Work as if the ideal has to be fulfilled swiftly and in this life time."

OPINION OF

THE CORE GROUP ON PUBLIC HEALTH AND HUMAN RIGHTS ON THE ISSUES CONNECTED TO EMERGENCY MEDICAL CARE RAISED IN CONNECTION WITH THE UPHAAR TRAGEDY

The core group studied the petition submitted on behalf of AVUT (Association of Victims of Uphaar Tragedy) along with the supportive documents accompanying the petition. It also studied responses received from the Union Government and several State Governments in response to the notice issued to them by NHRC.

The principal issues raised in the petition relate to:

(1) Establishment of Centralized Accident and Trauma Services (CATS) in all district headquarters of all State and Union Territories, along with strengthening of emergency health care services in all government hospitals.

(2) Institution of an enquiry into the abandonment of /delay in setting up of a Centralised Accident and Trauma Service Centre in Delhi, which had a bearing on the nature of emergency services available to the victims of Uphaar tragedy, and fixing responsibility on individuals/ agencies responsible for such an abandonment/ delay.

On the first issue, the core group opined that existing emergency care services in the national capital territory of Delhi as well as in other states were suboptimal and urgently required upgradation. Proposals for such an upgradation should involve an indepth evaluation on the estimated current and anticipated future needs in each State and Union Territory, integration with plans for prevention and management of disasters (including natural calamities), establishment of rapid response systems which include effective referral linkages and development of clearly defined guidelines for government as well as private health care providers. The report of the committee headed by Dr. R. K. Wishwakarma provides many useful recommendations in this regard. However, allocation of resources for upgradation of emergency care has to be made on the basis of relative prioritization of available resources across the health sector, keeping in view other public health needs as well. Further, the provision of emergency services should not be limited only to accident and trauma victims but also be able to serve the needs of other medical emergencies such as heart

attacks. An integrated medical care system with strong linkages between primary and secondary health care services is essential. Hence, each State and Union Territory would need to develop an implementation plan based on a realistic appraisal of identified needs as well as available resources. Since additional resources are likely to be required for the upgradation of emergency medical care services at various levels of health care, such an exercise of state level planning would need to be conducted in consultation with the Planning Commission. The NHRC may, therefore, consider directing all States and Union Territories to develop proposals for upgradation of emergency care services, with full organizational and financial details, for appraisal by a working group of the Ministry of Health and Family Welfare, Government of India working in conjunction with a Steering Committee to be appointed by the Planning Commission of India. An appropriate time frame may be stipulated by the NHRC for the submission of these proposals as well as their review by the Planning Commission. This activity may be linked to the development of the tenth five-year plan, which is currently in an early stage of preparation through ongoing consultations between the Ministry of Health and the Planning Commission.

On the second issue, the core group was of the opinion that the proposal to establish a Centralized Accident and Trauma Service in Delhi, inclusive of a Trauma Centre at AIIMS, has suffered from administrative delays and lack of coordination between the various agencies involved in its implementation. The proposal was originally approved in April 1984. The fact that such a service is yet to be satisfactorily established in Delhi, even by October 2000, is a sad reflection on the level of commitment of the agencies involved in implementing this project of undoubted public health importance. The Commission may, therefore, consider instituting an enquiry into the systemic failures that have resulted in such a tardy implementation of this project proposal. Apart from fixing responsibility on individuals/agencies who may have been responsible for the delay, such an enquiry would serve a salutary purpose if it provides guidelines for avoiding such delays in future projects of public health relevance.

The core group was of the view that an efficient health care system must provide holistic protection for medical emergencies by combining preventive and early warning services as well as the ability to respond appropriately to emergencies whether they arise due to trauma or due to disease. A comprehensive system for prevention, detection and care of medical emergencies needs to be put in place in all States and Union Territories. Directives from NHRC, in the context of the AUVT petition, would provide an opportunity to advance this vital public health agenda. The core group's suggestions on the components of such a comprehensive emergency care system are appended (Appendix I).

Appendix

Emergency response by the Public Sector Health Care System in India

If we consider emergencies in a broad manner, referring not only to trauma but also to disease outbreak then we need to couple “response readiness” or the reactive ability of the health system to a system for early detection or proactive ability. For the reactive component the skills that are needed are those of trauma care and basic medical expertise. For the proactive element the skills of public health are needed and it is important that the health system deploy persons trained in Public Health as an integral and necessary part of the Health care system, particularly in the rural health care set up.

To have better emergency response capability, both in case of trauma and in the case of sudden outbreaks of illness, the system has to be geared up in many ways. Injuries and other large scale medical emergencies can be caused not only by road traffic accidents (and these are increasing every day) but by natural and manmade calamities such as fire, building collapse, earthquakes, the actions of unfriendly nations or

terrorism etc. It is essential that we as a nation be prepared to respond in emergencies and provide timely help to our people in case of need.

- Every health care facility should be prepared to respond to emergencies. This means not only ensuring that the casualty departments of tertiary care government hospitals are manned by suitably trained and adequate manpower and also that equipment and space are provided for, but that such preparedness extends all the way down to the urban and rural Primary Health Care system.
- Training in emergency response must become an important part of the training of health staff; concentrating on medical doctors but not excluding para-professionals.
- The situation in the rural areas is especially critical. Not only are mechanical and animal based accidents an almost inevitable part of farm life, but poisoning by toxic chemicals including insecticides and outbreaks of communicable disease also often seem to strike in the peripheral areas.
- It is essential that a clearly defined referral system and network of laboratory support services be established in the country. Very often diagnostic and investigative services are needed in medical emergencies, especially when a disease outbreak strikes. While such services are available in the larger cities, laboratory facilities are not always as accessible when needed in a rural area.
- What is needed is a clearly defined chain of referral, almost entirely drawn from existing resources, that are there if needed and that this information is available both to the laboratories and to all levels of the health care system. What is required is management and almost no major extra financial commitment.
- The number of medical colleges in the country, together with other tertiary care institutions, are such that the entire country can be covered by giving responsibility for 3 to 4 districts to each tertiary care institution. These institutions would thus know which districts were their responsibility, and more important, all health care facilities in the concerned districts would know which medical college was available to them for patient referral and laboratory support.
- Even private tertiary care institutions, especially medical colleges, are subsidised directly or indirectly by Government and it should be made clear that they have a responsibility to the community. In any case all medical students are supposed to have rural training in the three PHCs allotted to the medical college and this system could be in consonance with this requirement.

EMERGENCY HEALTH CARE LOAD IN SELECTED HOSPITALS OF DELHI

Dr. R.K. Wishwkarma
Dr. O.P. Sharma
Mukesh Kumar
Sanjay Pratap

Executive Summary

1. The study indicates that on an average out of eight patients visiting the hospital in the OPD or emergency, one was an emergency patient and out of four patients who visited the emergency-one was serious enough to be admitted. Though these ratios may vary from hospital to hospital, yet it emerged that the emergency load on each hospital exceeded its capacity. But there has been no corresponding increase in the staff including doctors.
2. Great hiatus exists between the sanctioned and in position staff including doctors.
3. The factors responsible for increasing the emergency workload in general and adversely affecting the functioning of emergency departments in the hospitals are (i) rapid growth of urbanisation; (ii) overburdened OPD and sad state of routine health care; (iii) the state of health care delivery system at

the levels of dispensaries and PHCs; (iv) vocational imbalances and reputation of the hospital; (v) increasing cost of health services; (vi) growing bias towards tertiary care leading to unnecessary workload; (vii) lack of involvement of public sector; (viii) incremental approach in planning and management of health services; and (ix) reluctance on the part of private practitioners and private hospitals to attend to emergency patients.

4. About 50% of the hospital resources are being utilized by the emergency patients in Delhi. This is not only indicative of the fact that emergency patient occupies more significance at any hospital but also underlines the importance of the emergency services in the functioning and planning of health care delivery system. But this aspect of health care did not get any place in the National Health Policy which ought to have been its coordinate component.
5. Reorientation in the thinking of health policy planners is needed and emergency services should find a place in the national health policy.
6. The emergency health care load has been steadily increasing over the years. In spite of the tremendous pressure of workload the management of this service appears to be indifferent and apathetic.
7. Emergency health care services are the victims of not only adhoc planning and decision making but also to unplanned investment, lop-sided expenditure and maintenance, insensitivity to the problems of personnel, inadequate level of communication and coordination, near dysfunctional ambulance services and such other problems. This strongly suggests that there is hardly anything right with most of the hospitals and especially with the emergency health care provisions.
8. There is no comprehensive perspective health plan including emergency for the entire city of Delhi. Whatever efforts were made, they were at the levels of large hospitals and without taking stock of the other intermediate and peripheral hospitals, dispensaries, specialised clinics, etc. of the entire city. The large hospitals bear almost the entire load of emergency patients due to lack of planning.
9. The record keeping and data base, at present, is very poor. A proper health information base (computerised) should be developed at each level to facilitate perspective policy planning.
10. Experience calls for the privatisation of Class IV staff in the field of security, sanitation, kitchen, laundry, etc.
11. Most of the hospitals have not allocated adequate equipments and infrastructure to the casualty department. Often the basic necessities like separate resuscitation room, a minor operation theatre, dressing room, adequate number of stretchers and wheel chairs, etc. are lacking.
12. In the absence of a proper communication network among various agencies i.e. Police, Fire and Ambulance services and hospitals, precious time is lost in initiating the treatment.
13. No proper referral system is in vogue among government hospitals and between government and private hospitals. It functions in an extremely ad-hoc manner.
14. A separate autonomous board, with adequate powers should be set-up to look after the emergency services in Delhi. It should have representatives from Central Government, Delhi Government, Local bodies, Private hospitals, medical professionals and public.
15. Emergency services in the hospitals to be given the status of full-fledged department. The department of emergency should be given the name of ACCIDENT & EMERGENCY SERVICES (A & E Services). The department should be headed by either a Specialist (teaching) or a GDMO with postgraduate qualification of the rank of Addl. Medical Superintendent. He/she should also be given specialised training in managing the functions of the A & E Department.
16. Emergency services in Delhi be recognized at three levels, viz. Primacy level (Selected Dispensaries/Small hospitals, PHCs, etc). middle level (medium and large hospitals) and Apex level (centralized body for A & E Services).

17. The A & E Services Units at the local level be adequately staffed and equipped and affiliated with big hospitals. All the big hospitals should have specialized Neurosurgery and Trauma Units.
18. Yardsticks with regard to staffing pattern and equipments at each unit to be clearly laid down.
19. Lop-sided distribution of health facilities including emergency services to be corrected.
20. Private sector be treated as partner and non an outsider while planning emergency services. It should be mandatory for the Private Nursing Homes and Hospitals to provide immediate emergency medical care. All those cases which need hospitalization for more than 24 hours and specialized treatment be referred to Government hospitals, after checking with them and also after stabilization of patient's conditions. A proper system of checks to be worked out in this respect.
21. Layout and design of the A & E services to be standardised not only for Delhi but also for the country as a whole.
22. The existing thinking and "practice" in regard to postings in the casualty as punishment need to be corrected. To attract and retain qualified and component talent in the A & E services, a proper system of incentives @ 15% of the basic pay per month be given to all the persons working in the emergency services; and proper 'offs' and 'rest' period should also be given.
23. As far as personnel are concerned, the major problem is of human management. The attitude of medical personnel requires re-orientation. It calls for a proper system of recruitment and training both at the time of induction to the service and (periodic) in-service training.
24. Ambulances need to be upgraded. The upgraded ambulances in radio communication with their control room be stationed at strategic points under the charge of the Central body.
25. Police and Fire personnel require to be educated and trained to provide elementary emergency services and in dealing with public.
26. Public requires to be educated and counselled. In addition to regular government channels, the services of NGOs working in the health sector should be utilized in educating people.
27. A proper referral system be developed.
28. All zonal and Government hospitals must have a proper system of communication connected with a computer.
29. Responsibility for maintenance of equipment must be fixed and accountability ensured.
30. Keeping in view the necessary load of non-emergency patients, it is desirable either to extend the OPD hours or have the OPD function in two shifts.

(Excerpt from a consultancy conducted by Indian Institute of Public Administration and sponsored by the Ministry of Health and Family Welfare, Government of India and the World Health Organization)

NUTRITIONAL STATUS OF INDIAN CHILDREN: RECENT TRENDS AND CURRENT STATUS

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India has made substantial progress in human development since independence in terms of improvement in life expectancy and fall in under-five, neonatal and infant mortality rate. Although, nutritional status has also improvesd, the improvement in nutritional status has not always kept pace with progress in other areas of human development. Malnutrition plagues a disproportionately large number of children in India as compared to most other countries, with prevalence of wasting being 8 times and severe wasting about 25 times the prevalence in the International reference population[1]. The major nutritional problems that elude

solution despite the increase in food availability and implementation of control programmes are protein energy malnutrition (PEM), vitamin A deficiency (VAD), iron deficiency anaemia (IDA) and iodine deficiency disorders (IDD). This chapter focuses on recent epidemiological trends and the current scenario in relation to the nutritional status of children in India.

Data on trends in the nutritional profile of children in India is lacking in several areas of interest. The two major sources of information are the national surveys, which provide data related to nutrition and cover large segments of India's population: (i) the periodic surveys carried out by the NNMB[2-5], of the National Institute of Nutrition, Hyderabad, and (ii) the National Family Health Surveys[1, 2] (NFHS 1 and 2) initiated by the Ministry of Health and Family Welfare, Government of India[6,7]. The NFHS-1 survey conducted in 1992[6] covered 24 states, and was designed to be representative of 99% of the young child population. However, the focus was on reproductive health and the data related to nutrition was secondary and somewhat limited. In NFHS-2 survey, conducted in 1998-99, the data on the nutritional status of children included haemoglobin levels in addition to the measurement of their height and weight[7]. In comparison, the NNMB surveys covered only eight states with a primary focus on the rural population, and the pre-school age data relates to the 1-5 year age group. The repeat (1989-90) surveys[2] are particularly valuable as these were conducted in the areas evaluated earlier (1975-79)[5] with a specific purpose of eliciting nutritional trends.

Protein Energy Malnutrition

PEM is the most widely prevalent form of malnutrition among children. Severe PEM, often associated with infection contributes to high child mortality in underprivileged communities. Further, early malnutrition can have lasting effects on growth and functional status. Evidence from many sources[2-7] demonstrates that malnutrition, while still unacceptably high, has declined substantially in the past few decades. The most outstanding achievement in this front has been the virtual banishment of acute large-scale famines, of the type that used to decimate sizable section of the country's population with distressing regularity (once in seven years) for centuries[8].

Improvement in agriculture production, development of transportation systems and improvement in water and sanitation are largely responsible for this change. This is not to deny that pockets of acute hunger still exist in some parts of the nation in some sections and in times of disasters like droughts and floods, but these are now dealt with more efficiently.

Kwashiorkor and Marasmus

There has been a significant decline in severe protein energy malnutrition (classical kwashiorkor and extreme forms of marasmus). Classical kwashiorkor has virtually disappeared from numerous regions. This change in the spectrum has been occasionally quantified[9]. Reliable community based data generated by the National Nutrition Monitoring Bureau (NNMB) from eight central and southern states (Andhra Pradesh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa and Tamil Nadu) also confirms a decline in clinical deficiency signs in preschool children (1 to 5 years old) from 1975-79 to 1988-90 in rural areas[2]. The overall prevalence of marasmus decreased from 1.3 to 0.6% and Kwashiorkor from 0.4 to 0.1%. Amongst the 12,000 children evaluated in the "Repeat Surveys", Gujarat showed the highest prevalence of both the forms (1.1% kwashiorkor and 4.9% marasmus), while in other states, their prevalence was below 1%. In the NNMB and National Council for Applied Economic Research (NCAER) linked survey conducted in 1994 in the same 8 states but in different sampled areas[3], among 1828 pre-school children the overall prevalences of kwashiorkor and marasmus were 0.2 and 0.4%, respectively. In fact, cases of kwashiorkor were seen only in Madhya Pradesh, where the prevalence was about 1.4%. However, marasmus was observed in 4 states, the prevalences ranged from 0.4% in Tamil Nadu and Andhra Pradesh to about 1.4% in Madhya Pradesh and Orissa. Fortunately, a similar declining trend was documented in the underprivileged urban slums of these 6 states[4] (cities included Ahmedabad, Bangalore, Bhubaneshwar, Cuttack, Hyderabad, Nagpur and Trivandrum). The overall prevalence of marasmus diminished from 3.7% in 1975-79 (n=519) to 0.2% in 1993-94 (n=334). No case of kwashiorkor was observed.

Nutritional Anthropometry

Anthropometry, despite its inherent limitations, is the most useful parameter to evaluate nutritional status of children. Table 1 compares the estimated prevalences of various indices of malnutrition in these surveys as per the current international recommendation and nomenclature[10,11]. A distinct improvement in the prevalences of underweight and stunting (including severe category, namely, below 3 SD) is evident from the NNMB data at an average rate of 1% per annum. The NFHS[6,12,13] estimates were still lower than the NNMB-NCAER[3] prevalences at comparable time periods. This could be primarily due to differences in sampling design, areas surveyed (whole country versus 8 states and urban plus rural versus rural) and the age groups analyzed (0-4 yrs versus 1-5 yrs). Malnutrition in these two indices is lower in the first year of life[14], urban areas[13] and the northern part of the country[12, 13, 15, 16]. Fortunately, a similar overall declining trend was documented in the underprivileged urban slums of 6 states[4] between the periods 1975-79 to 1993-94 for weight for age (Gomez classification based on National Centre for Health Statistics reference).

It must be carefully noted that there is virtually no change in the profile of wasting in this period and the NNMB and NFHS estimates are also identical (Table 1), indicating thereby that the improvement in weight for age index is predominantly due to an increase in the height.

In the recently published NFHS-2 survey report[7], almost half of children under three years of age (47 percent) were underweight, and a similar percentage (46 percent) were stunted. The proportion of children who were severely undernourished was also notable-18 percent according to weight for age and 23 percent according to height for age. Wasting was less prevalent affecting 16 percent of children under three years of age. The proportion of children under three years of age who were underweight decreased from 53 percent in NFHS-1 to 47 percent in NFHS-2 (Fig. 1), and the proportion of severely underweight decreased from 20 percent to 18 percent. Similarly, prevalence of stunting and severe stunting decreased from 52% and 29% in NFHS-1 to 45% and 23% in NFHS-2. However, height data in two surveys is not strictly comparable because children's height was not measured in five states in NFHS-1.

Malnutrition varies widely across region, states, age, gender and social groups, being worst in children under two, in the populous northern states, in rural areas, and among tribal populations and scheduled castes. Among the states, Madhya Pradesh and Sikkim have the highest and lowest prevalence of malnutrition, respectively[7]. In the NFHS-2 data, the prevalence of underweight ranged from <25% in Sikkim, Nagaland and Arunachal Pradesh to 55% in Madhya Pradesh and 54% in Bihar and Orissa; severe malnutrition likewise ranged from around 4% in Sikkim and 5% in Kerala, Mizoram, Goa and Manipur to near 25% - again in Bihar and Madhya Pradesh. Regional variations were also observed for stunting and wasting. In comparison to the urban areas, in rural areas the overall prevalences of underweight (38.4% vs. 49.6%) and stunting (35.6% vs. 48.5%) were higher while interestingly wasting (13.1% vs. 16.2%) was comparable[7]. Overall, girls and boys were about equally undernourished, but girls were slightly more likely to be underweight and stunted, whereas boys were slightly more likely to be wasted. In the NFHS-1 survey also, there was no gender differential-in approximately half the states, girls had higher underweight prevalences, while boys fared worse in the other half. However, on examining severe malnutrition only, a gender differential became apparent with a higher proportion of girls being severely malnourished in 11 of the 14 large states[13].

A multivariate analysis from the NFHS-1 survey[1], of the effects of selected demographic and socioeconomic factors on child malnutrition indicated that the strongest predictors of child nutrition in India were child's age, child's birth order, mother's education and household standard of living. Older children and children of higher birth order were more likely to be malnourished. Children whose mothers had little or no education tended to have a lower nutritional status, even after controlling for a number of other potentially confounding demographic and socioeconomic variables[17]. Children who lived in households with a relatively high standard of living tended to be better nourished than other children[1].

Dietary Intake

Feeding practices play a pivotal role in determining the nutritional status, morbidity and survival of children, particularly in the neonatal period and infancy. Proper infant feeding, starting from the time of birth is important for the physical and mental development of the child. The timing and type of supplementary foods introduced in an infant's diet also have significant effects on the child's nutritional status.

Infant Feeding Practices

NFHS surveys provide nationally representative data on breastfeeding and supplementation. In NFHS-2 survey, this data were obtained from a series of questions pertaining to 32,393 births in the three years preceding the survey[7]. Fortunately, breastfeeding is still nearly universal in India, with more than 95% of all children having been breastfed. However, only one tenth of infants surveyed in NFHS-1 began breastfeeding within one hour of birth and a quarter within one day of birth. These figures improved to 16% and 37% in NFHS-2, indicating improvement in breastfeeding initiation practices (Table II). A majority of women (64% and 63%) squeezed the first milk from the breast before commencing breastfeeding. Favorable practices were more evident in rural areas, educated, scheduled tribes and assisted births by health professionals.

Exclusive breastfeeding was quite common for young infants, but even at age 0-1 months more than one third of babies were given water or other supplements. Overall, 51-55% of infants under four months were given only breast milk, while 73-77% received predominant breastfeeding (only additional plain water allowed). The overall median durations of exclusive and predominant breastfeeding were 1.4 mo and 1.9 mo, and 4.7 mo and 5.3 mo, in NFHS-1 and NFHS-2 surveys respectively.

The use of infant formula was fortunately rare (1% below 1 mo; maximum 9-11% at 8-11 mo). Similarly, the use of bottles with nipples was relatively rare for breastfeeding children, increasing from 4% in the first month after birth to a high of 15-17% for children aged 5-6 mo, after which it declined slowly to near 5% for children approaching three years.

Unfortunately, supplementation by solid or mushy food was grossly inadequate, showing a rise from only 17-24% at 6 mo of age to 68-72% by age 12 mo and a slower rise thereafter to more than 90% for children who were three years old (Table II). Even though 95% of infants aged 6-9 months were breastfed, only about one-third received complementary semi-solid foods as recommended. Supplementation of breast milk by other milk rose steadily with age to 43-46% at age 8-9 mo and remained fairly constant (at 45-55%) in most of older age groups. Breastfeeding typically continued for long durations (Table II). The overall median length of breastfeeding was slightly over two years (24.4 mo-NFHS-1; 25.2 mo-NFHS-2)[6, 7].

Interesting regional differentials emerged. Goa had extraordinarily high usage of feeding bottles (almost twice as high as any other region) and very poor achievement of the goals for exclusive breastfeeding and a long duration of breastfeeding. Punjab, Jammu, Meghalya (NFHS-1); and Delhi, Himachal Pradesh and Sikkim (NFHS-2) also had an exceptionally low proportion of children under age of four months who were exclusively breastfed. Rajasthan, Bihar and Uttar Pradesh were consistently the poorest performers for receiving complementary foods at the appropriate age in both surveys. Some feeding problems were universal, however no state came even close to achieving the recommendations for exclusive breastfeeding of children under 4 months of age or the supplementation of breastmilk with semi-solids at age 6-9 months[6,7]. Both these factors, particularly the latter, are believed to be important factors contributing to the high prevalence of malnutrition.

General Dietary Intake

Comparative data on this aspect is mostly available from the NNMB 1975-79 and 1988-90 surveys[2] and National Sample Survey (NSS) Organization's 1972-73, 1983 and 1993-94 surveys[18]. In NNMB surveys, the nutrient intake was quantified in a proportion of sampled households by 24-hour recall and weighing. During this period, the household food security situation hardly change[19]. Similarly, there was little alteration in the overall intake of quantified nutrients during these 10-15 years[20]. However, the disaggregated data revealed that the energy intake of landless laborers belonging to the lowest income

bracket had increased by 1.36 kcal per consumption unit (CPU) during this period. Further, the dietaries of preschool children also showed some improvement, resulting in enhanced energy intake; about 75 kcal in children between 1 to 3 years (from 834 to 908 kcal; RDI 1240 kcal) and 140 kcal in the case of children in the 4 to 6 years age group (from 1118 to 1260; RDI 1690 kcal).

On the contrary, the data from NSS surveys from India's 17 most populous states revealed that, at all-India level, average calorie intake declined streadily in both rural and urban areas between 1972-73 and 1993-94. In rural India, average calorie intake fell from 2,266 Kcal in 1972-73 to 2,221 in 1983 and to 2,153 in 1993-94. In urban India, intake went down from 2,107 Kcals in 1972-73 to 2,089 in 1983 and 2071 in 1993-94[18].

According to the latest overall estimates, the diets provided adequate amounts of protein (62g/CU/day vs 60g/CU/day), calcium, iron and thiamine, but the intake of other quantified nutrients (energy, vitamin A and C and riboflavin) was below the recommended dietary intake (RDI) as laid out by the ICMR. Energy intake (228 kcal/CU) showed a marginal deficit while the maximum deficit was seen in vitamin A (350 vs 600 mcg/CU)[19, 20]. There was a direct relationship between the level of energy consumption and protein consumption. This was expected considering that the main source of calories and of protein in the habitual diets of the poor is nearly the same - consisting of a single staple cereal with insignificant amount of fat (calorie-rich) and protein-rich food like pulses or meat[12]. Wide variations in nutrient intake were apparent with the region and socio-economic status. The urban poor had the least intake followed by rural and urban better off population, respectively[2, 20].

A striking finding of both NNMB and NSS surveys was the lack of parallelism between the average household calorie and protein consumption in a given state on the one hand, and the prevalence of undernutrition in its children on the other. Thus the state that showed the best record (lowest prevalence) with respect to undernutrition in children, namely Kerala, was the poorest with respect to household food consumption. The state with a fairly poor record (Madhya Pradesh) showed the best figures for household food consumption. There have been different attempts to explain this apparent paradox between low intakes and relatively favorable nutritional outcomes. It is possible that in Kerala, nutrients are better utilized, quite possibly because of the positive interaction between health care and nutrition[12, 18]. In addition, high levels of education enhanced health-seeking behaviour and nutrition information among the people may have been responsible for the favorable results. There could be other explanations as well. One is that the paradox may, in fact, be an illusion. Questionnaires may underestimate consumption in Kerala because they do not capture adequately the very diverse components of diets in the State. Another explanation is that the allocation of food within the household can be assumed to be less inequitable in Kerala than elsewhere. Nutritional outcomes may thus be better than average intake data suggest.

Analysis of dietary data to assess intra-family distribution of food revealed that in 50% of the households surveyed, levels of energy adequacy did not differ between preschool children, adult men and women. Either all of them were consuming adequate amounts (31% of households) or inadequate amounts (19% of households). In a quarter of households, the intake was adequate in adults but inadequate in children. Calorie inadequacy was documented in a greater proportion of children (60%) than adults (44%)[20]. Further, no obvious gender bias was documented. When the intakes were corrected for requirements, the average calorie intake levels of women were close to 94% of their RDI as against 85% in men. This is contrary to the general belief that women get least.

In conclusion, malnutrition is still a significant problem in the country despite the observed decline. India and South Asia as a whole have higher rates of malnutrition than any other region of the world. Among large countries, India ranks second only to Bangladesh in the proportion of young children affected[21].

Intrauterine Growth

Birth Weight

In the context of developing countries, intrauterine growth has been invariably assessed by birth weight. In India, even today a majority of the deliveries are conducted in the community. Logistic difficulties in recording birth weight at home preclude accurate national estimates of the magnitude and trends of Low Birth Weight (LBW). A large volume of data on birth weight from the 1950s is available from individual studies, mostly hospital based, and this information has been exhaustively compiled and reviewed[22-26]. Regional, urban - rural and socio-economic differentials, in the same direction as nutritional anthropometry, are evident. The usual estimates of mean birth weight and LBW have ranged between 2.5 to 3 kg and 24 to 40%, respectively. In the community based ICMR multicentric study[27], the urban slum computations of LBW were 27% for Madras, 38% for Delhi and 56% for Calcutta. The oft-cited nationally representative figure for LBW is 30%[19]. It is felt that there have been no differences in the reported mean birth weights and the proportion of newborns with LBW in the three decades between late 1960s and late 1980s[22, 19]. These inferences were based on comparison of data from disparate settings at various time points. Given the expected marginal magnitude of change in birth weight in two to three decades in a nation commencing epidemiologic transition, these inferences from such a research design are not surprising. It would however, be more valid to analyze data from the same area at different time points.

On analysis of this nature (Table III), a positive time trend for birth weight is evident in most of hospital based data and the solitary community study[28-34]. The mean magnitude of improvement is marginal (52 to 126g). However, this has resulted in a greater reduction of LBW prevalence (by 8 to 12% usually and 22% in one report). These calculated mean improvements in birth weight are probably underestimates[32] since concomitant changes in other important associates have been ignored. With time, the mean birth order has also decreased and correction for this factor alone[32] enhanced the magnitude of change in the community study (rural and urban areas combined) from 70g to 100g (the first born newborns have lower weights than later births). The absent time trend in the two Delhi hospitals may be related to the relatively short gap in one report[34] and the fact that these institutions primarily care to the underprivileged population in whom the transition is expected to commence last of all. In one of these studies[29], the higher percentage of term births could be regarded as the beginning, since term newborns have the best intrauterine growth as a group.

The slender improvement in birth weight is probably contributed to by increases in both gestation and birth weight at different gestations (intrauterine growth curves). The mean improvement in gestation was again marginal (0.3 to 0.8 weeks) and was not uniformly observed. However, these marginal changes in mean gestations resulted in greater improvement in prematurity rates (4 to 5%).

Recently efforts have been made to collect nationally representative estimates of birth weights from institutional[35] and community[36]. The reliable institution based National Neonatology Forum (NNF) data[35] for the year 1995 on 30,632 births (0.1% births in the country) from 14 participating centres (Ahmedabad, Bangalore (3 centres), Baroda, Calcutta, Chandigarh, Delhi, Indore, Ludhiana, Madras, Mumbai, Pondicherry and Shimla) yielded a LBW prevalence of 31.2% in 29,412 live births[35]. Only 35% of the LBW infants were preterm. The Child Survival Safe Motherhood (CSSM) Programme linked District based data (Centre based delivery in 14 Districts in 10 States - Assam, Gujarat, Madhya Pradesh, Karnataka, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu and West Bengal) on 27,069 births estimated the LBW prevalence to be much lower at 18.4%[36]. Wide regional variations were apparent with values ranging from a low of 2.7% (Madhya Pradesh) and 5.1% (Assam) to a high of 24.7% (Tamil Nadu) and 40% (Orissa). The strikingly low figures in comparison to earlier published literature, especially for the poor performing states (Madhya Pradesh and Rajasthan- 12.8%) in other nutritional parameters including protein energy malnutrition, questions the reliability of the integrated data. Reliable recording of birth weight in a community requires meticulous training and an accurate and sensitive instrument.

Gestation

In contrast to the developed countries, the process of labour appears to be initiated at an earlier period of gestation in a larger proportion of pregnant women. The incidence of premature birth (<37 weeks gestation) ranges from 7.1% to 22.3%, in contrast to about 5% in the developed countries. The latest NNF data provides

a national estimate of 12.8%. Only 2% of births occur at 36 weeks in western countries, while 3-12% of infants are born at this gestational age in India. In the Indian setting, the maximum number of births occur at 39-40 weeks gestation, whereas in the West the corresponding figure is 40-41 weeks[25].

Apart from inter-regional difference, there is a marked variation in the gestational distribution in privileged versus under privileged segments of population in the same area. The contrast from the developed countries is very striking in the low socio-economic population, but the difference is considerably narrowed and even disappears in the privileged class[25].

Birth Weight and Gestation

A two distribution of birth weight and gestation shows that in the birth weight group of 1501-2000g, only 30-45% of infants are preterm, the majority being full term or post term. For the birth weight group 2001-2500g, 85% or more are term or post term and only 13-15% are preterm. These findings are consistent for hospital and community births[25] and have a bearing on the identification of high risk neonates and defining criteria for LBW in the Indian setting[27].

Intrauterine Fetal Growth Curves

A comparison of fetal growth curves shows disparity between regions and socio-economic classes. The economically privileged population has higher mean birth weights at different gestations, the difference becoming pronounced after 34 weeks[25].

A classification for infants at birth based on the hospital derived intrauterine growth curves has been proposed[37]. The suggested definitions for any gestation are: large for data (LFD): birth weight above +2 SD; appropriate for gestational age (AGA): birth weight between -1 SD and +2 SD; intrauterine growth retarded (IUGR): birth weight between -1 SD and +2 SD; and small for data (SFD): birth weight below -2 SD. This classification has support in observations on distribution of live births, morbidity and mortality in different groups[25]. The percentage distribution for all gestations for LFD, AGA, IUGR and SFD in the same hospital and draining urban cohort births were 3, 85, 10.5 and 1.5% respectively. The distribution of AGA, IUGR and SFD in term infants with birth weight of 2001-2500g was 13%, 85% and 1-2% respectively. This observation needs to be investigated further as this is the group which contributes maximally to LBW in India[25].

Iron Deficiency Anaemia

Iron deficiency anaemia (IDA) is the most widespread micronutrient deficiency in the world affecting more than a billion people. Anaemia is a serious concern for young children because it can result in impaired cognitive performance, behavioral and motor development, coordination, language development and scholastic achievement, as well as association with increased morbidity from infectious diseases[38-40].

The NFHS-2 survey conducted in 1998-99 provided for the first time information on the prevalence of anaemia throughout India[7]. Children below the age of three years had their haemoglobin estimated by *Hemocue* instrument.

All over the country, about 70.8% of children up to the age of three in urban areas and 75.3% in rural areas had anaemia. Nagaland had the lowest prevalence (43.7%), Kerala ranked second (43.9%) followed by Manipur (45.2%). Haryana had the highest prevalence (83.9%) followed closely by Rajasthan (82.3%) and Bihar (81.3%). These figures suggest that a great majority of young children (<3 years) are anaemic; and in a considerable proportion the anaemia is of a moderate to severe degree[7] (Table IV).

Nationally representative estimates for older children are not available. Estimates suggest that a great majority (nearly two-thirds, according to some data) of young adolescent girls of 6-14 years are anaemic; and in a considerable proportion the anaemia is of a moderate or severe degree[41]. In NFHS-2 report, 56% of ever-married girls in the age group of 15-19 years were anaemic; and in 20% the anaemia was of moderate or severe degree[7]. The ICMR multicentric “High Risk” study[27] on ever married eligible women (13-49 years) recorded an anaemia (haemoglobin <12 g/dl) prevalence of 82% in rural areas (n=5929) and 85% in urban slums (n=7371).

The results of NFHS-2 surveys from most of the states suggest the highest prevalence of anaemia in the age group of 12-23 months[7]. The sharp increase in iron-deficiency anaemia among children of age 12-23 months may partly be attributed to the initiation of weaning-infection coupled with poor nutritional supplementation. It was also seen that children born to mothers who were illiterate or who belonged to scheduled castes/tribes were more likely to be anaemic than their counterparts. Further, children born to moderately and severely anaemic mothers were more anaemic themselves, reflecting the consequences of poor maternal health status on the health of the children[7].

Recent evidence[42,43] suggests that severe iron deficiency anaemia during the first two years of life, when the brain is still developing, may cause permanent neurologic damage. These new findings add a further sense of urgency to the current efforts to prevent iron deficiency anaemia in children.

Vitamin A Deficiency

The National Programme for Prevention of Nutritional Blindness has been functioning for the last 25 years in India. There is unambiguous evidence of appreciable secular decline in clinical vitamin A deficiency in under five children in the country. Recently, vitamin A has generated considerable interest and controversy because of pressure by International agencies for periodic massive dose vitamin A prophylaxis as a cost-effective strategy for improving child survival. Biological indicators, both clinical and biochemical are widely used to assess prevalence and severity of VAD and to evaluate the effectiveness of VAD control programmes.

The classification of xerophthalmia and the prevalence rates suggested by WHO[44] for assessing public health significance of the problem are Xn -Night blindness>1%, X_{1B} - Bitot spots>0.5%, X_2/X_3- Corneal xerosis/ulceration>0.01%, Xs-Corneal scar>0.05%. Conjunctival xerosis (X_{1A}) is not used, as it is not a reliable sign.

Night Blindness and Bitot Spots

Night blindness and conjunctival xerosis are the early manifestations of VAD. Prevalence of Bitot spots has reduced in preschool children between 1960s and 1990s[2-4, 45-47]. NNMB repeat surveys[2] in India have revealed a marked overall decline from 2% in 1976 to less than 0.7% in 1990. However, wide regional variations are evident and in some areas no child with Bitot spots was seen. In the NNMB 1994 rural survey[3], none of the children in Kerala, Andhra Pradesh and Gujarat had Bitot spots while the prevalence ranged from 0.4% in Karnataka and Orissa to 5.6% in Madhya Pradesh. The prevalence was more than 0.5%, a level suggestive of public health problem, according to WHO criterion, in the States of Tamil Nadu (0.8%), Maharashtra (1.5%) and Madhya Pradesh (5.6%).

In the NNMB 1994 rural survey[4], overall 0.9% of adolescent girls (12-18 years old) had Bitot spots; the range being 0.6 to 2.7%. In 4 states no case of Bitot spot was observed in this age group. The overall prevalence in adult females was 0.7% (range 0% in Gujarat to 3.3% in Tamil Nadu). Only in 2 States (Tamil Nadu-3.3% and Madhya Pradesh-1%) values above 0.3% were documented.

The NNMB 1992-93 rural survey in 10 States was conducted on a much larger sample size of 26,760 preschool children to specifically address the issue of linking periodic dosing of vitamin A with universal immunization programme[46]. The prevalence of Bitot spots ranged from 0.3% in Kerala and 0.4% in Tamil Nadu to 3.2% in Gujarat and 3.6% in Madhya Pradesh. The prevalence was above 0.5% in 8 of the 10 States. Interestingly and paradoxically, the overall prevalence of night blindness (1.1%) was lower than Bitot spots (1.9%) in 1-5 years old children. A noteworthy observation was the absence of Bitot spots in infancy, even in slums, in the surveys conducted in the 1990s.

According to the latest countrywide data[47] from Department of Women and Child Development (DWCD), the overall prevalence of Bitot's spots and thus vitamin A deficiency further declined to 0.2% in the country (Table V). The prevalence ranged from <0.1% in states of Haryana and Himachal Pradesh to 3% in Mizoram. The prevalence was more than 0.5% in the states of Orissa (0.9%), Mizoram (3%), Maharashtra (0.7%),

Karnataka (0.8%), Tamil Nadu (3.1%), Andhra Pradesh (0.8%) and Madhya Pradesh (2.6%). A noteworthy finding was that vitamin A deficiency was more prevalent in most southern states which may be related to the dietary factors.

Keratomalacia

A nationwide survey conducted by the ICMR during 1971-74 showed that 2% cases of blindness were attributable to corneal disease caused by vitamin A deficiency[19]. In the subsequent (1985) national survey of blindness, carried out under the auspices of the Government of India and the World Health Organization (WHO), this figure declined to 0.04%[19,26]. Data from the School of Tropical Medicine, Calcutta, once the hotbed of keratomalacia, and from the Christian Medical College, Vellore[26] are also suggestive of a sharp reduction in the documentation of keratomalacia (0 to 0.008% in late 1980s). A careful scrutiny of the hospital data from Calcutta in fact suggests that the decline in the incidence of keratomalacia had started even before the massive dosage prophylaxis programme had been instituted[26].

Dietary Intake

The frequency of consumption of vitamin A rich foods has also been suggested as an indirect measure of assessing VAD in population. Evidence from Delhi urban slums[48] showed that nearly 73% of children in the age group 12-71 months consumed vitamin A rich foods less than three times per week- a level suggestive of public health problem, according to WHO criteria. The frequency of consumption of vitamin A rich food by the families was significantly higher during winters as compared to summers and rainy season and this could be due to comparatively high cost of dark green leafy vegetables in summers and rainy season.

Iodine Deficiency Disorders

Iodine deficiency is one of the widespread nutritional deficiencies prevalent in the developing world and it continues to be significant public health problem. A spectrum of disorders, besides goitre, collectively referred to as iodine deficiency disorders (IDD) are caused by environmental iodine deficiency. Children in their growing period are especially vulnerable to adverse effects of iodine deficiency. A variety of indicators have been recently recommended by the international agencies[49] to quantify the magnitude of IDD including gaiter, thyroid volume by ultrasound, urinary iodine excretion and thyroid stimulating hormone (TSH) in newborn blood. Children in the age group of 8-10 years (excluding TSH) are the recommended target population because of their combined high vulnerability, representativeness of community and easy accessibility[49]. However, nationally representative information in the country is primarily based on goiter prevalence surveys in the entire population and occasionally on clinical evidence of cretinism which may be unreliable.

In India, not even a single state or Union Territory is free from the problem of iodine deficiency disorders[50]. Out of 275 districts surveyed by various Government of India Institutions and Central Goiter Survey Teams in 25 states and 4 Union Territories, 235 were endemic for IDD[50]. It is estimated that nearly 167 million people in India are exposed to the risk of IDD of which 54 million have goiter, 2.2 million are cretins and 6.6 million have mild neurological disorders[51].

An early intervention study initiated in 1954 showed an appreciable decline in the goiter prevalence rate following 6 years of iodization of salt in Kangra Valley, Himachal Pradesh[52]. In view of the magnitude of the problem as well as considering the technical, administrative, financial and operational feasibility, the Government of India took a decision in 1984 to iodize all edible salt in the country, i.e. Universal Salt Iodization (USI). During recent years, research surveys have been conducted to evaluate the success of universal salt iodization. Table VI depicts the status of iodine deficiency in the selected states[53]. The goiter prevalence was documented to be as high as 20.5% in district Bikaner, Rajasthan to as low as 0.8% in district Pauri, Uttar Pradesh. However, when the median urinary iodine excretion cut off of $\geq$10 mcg/dl was used as a criterion for assessing iodine deficiency in a population no state included in the study was deficient. It was found that 68 to 100% population in the study area was consuming iodized salt[53]. In Delhi, the goiter prevalence rate in school children declined from 55.2% in 1980[54] to 8.6% in 1996[55]. Repeat data revealed a

marked reduction in the incidence of neonatal chemical hypothyroidism (NCH) in highly endemic areas of Uttar Pradesh following salt iodization[56,57]. The observed NCH rates in 1992-96 following salt iodization are much lower than earlier projections in other areas also[57].

In the NNMB 1994 rural survey[3], the goiter prevalence rate (mostly grade 1) in adolescent girls was 3.9% (documented in only 3/8 states). The corresponding figure for adult females was 2.8% and was mostly seen in States of Kerala, Karnataka, Madhya Pradesh and Orissa. As per the latest estimates of the sample surveys conducted by the Directorate General of Health Services, 228 of the 367 surveyed Districts in the country are IDD endemic (goitre prevalence > 10%). The reported rates of NCH from the few available studies prior to massive input of salt iodization ranged from 6 to 133 per thousand births (Uttar Pradesh, Delhi, Mumbai and Vishakapatnam).

Conclusions

There is increasing awareness about the importance of nutritional status, an important index of the quality of life. Although, there is an overall positive trend in nutritional outcome during the past few decades, the gain is modest and predominantly in terms of reduction of more severe varieties of malnutrition. A favorable transition appears to have been initiated in the less severe varieties of undernutrition also, notably illustrated by slender improvements even amongst the poor. These encouraging observations in poor women and children, despite a steep increase in population and continued social and economic inequity, are inspiring indications that at long last India may be at the turning point with respect to nutrition.

Despite the apparent gain, current magnitude of deficiencies in virtually all nutritional public health indicators is nowhere near the International standards. There is an urgent need to intensify efforts to improve the nutritional profile of children to optimize human resource development.

Table 1: *Trends in childhood malnutrition in India.*

				Survey	
Nutritional Parameter	NNMB 1975-79 (n=6,428)	NNMB 1988-90 (n=13,422)	NNMB 1994 (n=1,832)	NFHS-1 1992-93 (n=25,578)*	NFHS-2 1998-99 (n=24,600)
Weight for age					
Underweight					
<2 SD	77.5	68.6	63.6	53.4	47.0
<3 SD(severe)	38.0	26.6	24.7	20.6	18.0
Height for Age					
Stunting					
<2 SD	78.6	65.1	63.0	52.0	45.5
<3 SD(severe)	53.3	36.8	35.8	28.9	23.0
Weight for height					
Wasting					
<2 SD	18.1	19.9	16.7	17.5	15.5
<3 SD(severe)	2.9	2.4	2.6	3.2	2.8

*For weight for age assessment only. The sample size for other two indices was lower.

Adapted from Sachdev HPS. Epidemiological Trends in Nutritional Status of Children and Women in India. *In:* Improving Newborn Infant Health in Developing Countries. Eds. A Costello, D Manadhar, London, Imperial College Press, 2000; pp 99-128.

Table II: *Breast Feeding and Supplementation Indicators*

Indicator	NFHS-1 Data (1992-93) (%)	NFHS-2 Data (1998-99) (%)

Breast feeding within one hour of birth	10	16
Breast feeding within one day of birth	26	37
Discarding first milk	64 †	63
Exclusive breast feeding in infants<4 months	51	55
Breastfed (any amount) at ages		
6 months	-	96
12 months	88	92
24 months	57	59
Median duration of breast feeding(months)		
Exclusive breast feeding	1.4	1.9
Predominant breast feeding	4.7	5.3
Any breast feeding	24.4	25.2
Solid/mushy food in breastfed children at ages		
6 months	17	24
12 months	68	71
24 months	89	88

† Among last-born children only.

Table III - *Trends in Intrauterine Growth*

Ref.	*Area*	*Setting*	*Comparison*	*Observed Changes*		
			Period (Mean gap in yr)	*Weight*	*Gestation*	*IUGC*
28	Rourkela (Orissa)	Industrial Hospital	1963 & 1986 (23)	MBW+74g LBW:34vs25%	NA	NA
29	Delhi	Hospital (Poor)	1969 & 1989 (20)	NA	Term*+	0
30	Delhi	Hospital (Better off)	73-74 & 85-87 (12.5)	NA	NA	+
31	North Arcot (Tamil Nadu)	Rural	69-73 & 89-93 (20)	MBW+78g LBW:27vs16%	M+0.7W PT:21vs16%	+p
		Urban	69-73 & 89-93 (20)	MBW+52g LBW:19vs11%	M+0.8W PT:20vs15%	+p
32	Vellore	Hospital	1969 &1994 (25)	MBW+126g LBW:27vs15%	Me+0.3W PT:14vs10%	NA
33	Mumbai	Hospital (Poor)	1988 &1995 (8)	LBW:60vs38%	0	NA
34	Delhi	Hospital (Poor)	1986 &1996 (11)	0	0	NA

+ indicates significant increase; +p indicates significant at some gestations;
- indicates significant decline; 0 indicates no significant change;

IUGC - intrauterine growth curves; M-Mean; Me - Median; MBW-Mean birth weight; NA- Not available; Ref.- Reference number; W - Gestation in weeks;

* Calculated by comparison with earlier study values cited in Reference 25.

Adapted from Sachdev HPS. Epidemiological Trends in Nutritional Status of Children and Women in India. *In:* Improving Newborn Infant Health in Developing Countries.Eds. A Costello, D Manadhar, London, Imperial College Press, 2000; pp 99-128.

Table IV: *State wise prevalence of Anaemia* (NFHS-2 Data)*

State	Anaemia Prevalence Rate (%) None (≥11g/dl)	Mild (10-19.9g/dl)	Moderate (7-9.9g/dl)	Severe (<7g/dl)
Andhra Pradesh	28	23	45	4
Arunchal Pradesh	45	29	25	1
Assam	27	31	32	0
Bihar	19	27	50	4
Delhi	31	22	43	4
Goa	16	18	59	7
Gujarat	47	23	28	2
Haryana	25	24	44	7
Himachal Pradesh	30	29	39	2
Jammu & Kashmir	29	29	38	4
Karnataka	29	20	43	8
Kerala	56	24	19	1
Madhya Pradesh	20	17	57	6
Manipur	55	23	22	1
Meghalaya	32	23	40	4
Mizoram	43	32	23	2
Nagaland	56	22	19	3
Orissa	28	26	43	3
Punjab	20	17	57	6
Rajasthan	18	20	53	9
Sikkim	23	28	41	8
Tamil Nadu	31	22	40	7
Uttar Pradesh	26	19	48	7
West Bengal	22	27	46	5
India	**26**	**23**	**46**	**5**

* Haemoglobin levels are adjusted to altitude when calculating the degree of anaemia. Adapted from reference 7.

Table V: *State wise Prevalence of Vitamin A Deficiency Signs*

State/UT	Bitot's Spots %
Haryana	0.04
Himachal Pradesh	0.01
Punjab	0.12

Rajasthan	0.22
Chandigarh	0.00
Delhi	0.05
Bihar	0.14
Sikkim	0.19
Orissa	0.86
Arunachal Pradesh	0.34
Assam	0.45
Manipur	0.14
Meghalaya	0.18
Mizoram	2.97
Nagaland	0.35
Tripura	0.02
Dadra & Nagar Haveli	0.38
Daman & Diu	0.05
Goa	0.00
Gujarat	0.20
Maharashtra	0.72
Kerala	0.25
Karnataka	0.77
Tamil Nadu	3.11
Andhra Pradesh	0.79
Madhya Pradesh	2.62
Pooled	0.21

Adapted from Reference 47.

Table VI: *Status of iodine Deficiency in Selected States of India*

State	Name of the district	Prevalence of goiter	Age group	Year of excretion	Median urinary iodine	Percentage of population consuming	selected (%)	(yrs)	Survey
					(mcg/dl)	iodized salt			
Andaman & Nicobar	Andaman (n=622)	9.5	6-12	1997	20.0	99.5			
Bihar	East Champaran & West Champaran (n=1328)	11.6	6-12	1997	10.0	100.0			
Delhi	Entire State (n=7475)	8.6	8-10	1996	17.0	98.6			
Himachal Pradesh	Kangra (n=1358)	5.7	8-10	1996	16.5	97.9			
	Hamirpur	8.8	8-10	1996	13.5	97.5		(n=1413)	
	Kinnaur (n=1094)	6.1	6-10	1996	19.5	99.2			
	Solan (n=6724)	11.4	8-10	1997	15.0	98.1			

Kerala	Ernakulam (n=1254)	1.0	6-12	1998	20.0	97.4	
Pondicherry	(n=2065)	Entire UT	2.6	6-11	1997	14.5	100.0
Rajasthan	Bikaner (n=623)	20.5	6-12	1996	15.5	68.1	
Uttar Pradesh	Uttarkashi (n=216)	2.8	6-12	1998	20.0	98.4	
	Pauri (n=604)	0.8	6-12	1998	17.5	97.3	
	Pithoragarh (n=740)	1.5	6-12	1998	20.0	98.9	

Adapted from Reference 53.

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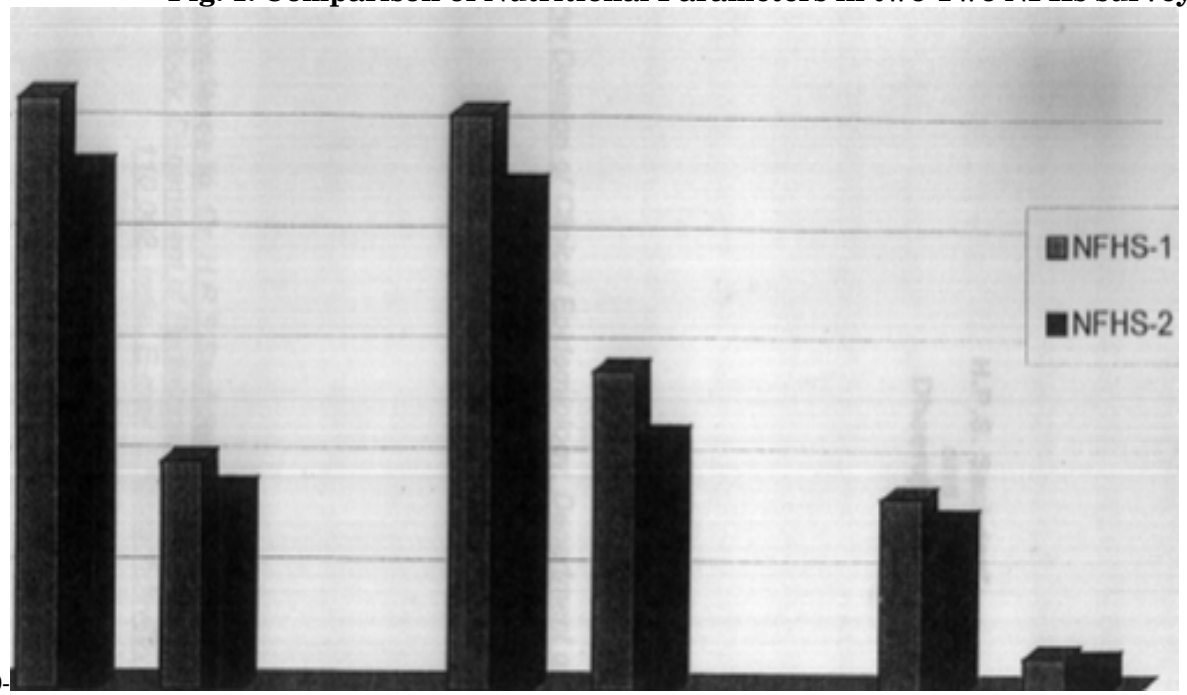
Fig. 1: Comparison of Nutritional Parameters in two Two NFHs survey



LOW BIRTH WEIGHT

Prof. H.P.S. Sachdev

Intrauterine growth and development is one of the most vulnerable process in the human life cycle and its aberrations can result in lasting profound influence in later life. In the context of developing countries, intrauterine growth has been invariably assessed by birh weight. Although it may be reasonable to infer that fetuses who have experienced growth restriction *in utero* will be lighter and smaller, it must be understood that size at birth does not *completely* reflect growth (Gulmezoglu *et al.* 1997). The suitability of utilizing only birth weight as an indicator of fetal growth has been debated and criticized (Wilcox 1983, WHO 1995); however, it is sometimes that *only* measure available, especially in developing countries (Gulmezoglu *et al,* 1997).

The World Health Organization (WHO), on the basis of world wide data had recommended that newborns with birth weights less than 2500gm. may be considered to fall in the low birth weight (LBW) category - carrying relatively greater risks of perinatal and neonatal morbidity and mortality and substandard growth and development in later life. The validity of this definition and the "cut off point" of 2500gm. has been occasionally challenged: but has by and large now gained general acceptance (Gopalan 1994). The latest WHO recommendation (WHO 1995, de Onis and Habicht 1996) has retained this "cut off point" of 2500gm. to define LBW and recommended an additional demarcation of 1500gm. to define very low birth weight (VLBW) babies.

LBW infants encompass a heterogeneous population of newborns. Broadly, the birth weights may be low because the baby is born small for gestational age (SGA) as a result of intrauterine growth retardation (*synonym* intrauterine malnutrition) (IUGR) or because birth is preterm. In the developed countries, the overwhelming majority of LBW infants are preterms whereas in the developing nations, including South Asia, the reverse is the case; the great majority of newborns with LBW are full term infants who are SGA (Gopalan 1994, Gillespie S 1997). Attempts have also been made to further classify IUGR as disproportionate or proportionate on the basis of Ponderal index $(\text{weight/length})^3$ (Kramer 1987, Villar *et al.* 1990). Disproportionate IUGR infants have a low ponderal index whereas proportionate IUGR babies have a normal ponderal index (all body dimensions proportionately small).

On the basis of available evidence, the ensuing sections will examine the nature, consequences and causes of LBW in the South Asian sub-continent and evaluate the various options for action to address this major public health problem in the region.

1. NATURE OF THE PROBLEM

1.1. Magnitude of the Problem

In South Asia (excluding Sri Lanka), even today a majority of the deliveries are conducted in the community. Logistic difficullties in recording birth weight at home preclude accurate national estimates of the magnitude and trends of LBW. However, a large volume of data on birth weight is available from individual studies, most of which are hospital based.

Table 1 Compares the LBW prevalence estimates from different countries in South Asia with other selected regions. The oft cited national estimates for South Asia should only be construed as broad indicators as these have not been derived on the basis of sound epidemiological methodology. South Asia has the highest prevalence of LBW and the disparity in comparison to developed countries and some developing regions (Africa) is obvious. In fact, the latest projections indicate that more than half of the world's LBW babies are born in South Asia (UNICEF 1996).

Table 1. *LBW Prevalence (%) in South Asia and Other Regions.*

Region	*Usual range in studies*	*Oft cited estimate*	*Major sources*
SOUTH ASIA			
Bangladesh	23-60	50	UNDP 1996, UNICEF 1996 & 1997, Nahar 1997, Roy 1997.
Bhutan	35-44		UNICEF 1996
India	24-40	33	Srikantia 1989, UNDP 1996, UNICEF 1997 NNF 1997, Sachdev 1997
Maldives		25	UNICEF 1996
Nepal	25-50		UNICEF 1996, Manandhar 1997
Pakistan	18-34	25	Arif 1985, UNDP 1996, UNICEF 1996 & 1997, Bhutta 1997, Zaman 1997
Sri Lanka		25	UNDP 1996, UNICEF 1996 & 1997
Asia		21	WHO 1992
Africa		15	WHO 1992
Latin America		11	WHO 1992
North America		7	WHO 1992
Europe		6	WHO 1992
Oceania*		20	WHO 1992
USSR		7	WHO 1992
Developing countries		19	WHO 1992
Developed countries		7	WHO 1992
Global		17	WHO 1992

* Excluding Japan, Australia, New Zealand.

In India, recently efforts have been made to collect nationally representative estimates of birth weights from institutions (NNF 1997) and community deliveries (Ramji 1997). The reliable institution based National Neonatology Forum (NNF 1997) data for the year 1995 on 37,082 live births (nearly 0.1% births in the country) from 15 participating centres (Ahmedabad, Bangalore (3 centres), Baroda, Calcutta, Chandigarh, Delhi (2 centres), Indore, Ludhiana, Madras, Mumbai, Pondicherry and Shimla) yielded a LBW prevalence of 32.8%. Only 33% of the LBW infants were preterm. The Child Survival Safe Motherhood (CSSM) Programme linked District based data (Centre based delivery in 14 Districts in 10 States - Assam, Gujarat, Madhya Pradesh, Karnataka, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu and West Bengal) on 27,069 births estimated the LBW prevalence to be much lower at 18.4% (Ramji 1997). Wide regional variations were apparent with values ranging from a low of 2.7% (Madhya Pradesh) and 5.1% (Assam) to a high of 24.7% (Tamil Nadu) and 40% (Orissa). The strikingly low figures in comparison to earlier published literature, especially for the poor performing states (Madhya Pradesh and Rajasthan- 12.8%) in other nutritional parameters including protein energy malnutrition, however, questions the reliability of this integrated data. Reliable recording of birth weight in a community requires meticulous training and an accurate and sensitive instrument.

1.1.1. Variation in LBW Prevalence

Apart from manifest inter-country variations in South Asia (**Table 1)**, there is a considerable variation in the prevalence of LBW within a country. Wide inter-regional, socio-economic and urban versus rural differences in the prevalence of LBW have been recorded (Bhargava *et al.* 1985, Bhargava SK 1997, Nahar 1997, Roy SK 1997). In India, the disparity has ranged from a prevalence of 10% (for the privileged high socio-economic class) to 56% (for the poor urban slum community) (Bhargava SK *et al.* 1990, Bhargava SK 1997). Rural and urban slum deprived populations have consistently recorded the highest prevalence of LBW. Interestingly, even in the same region, the underprivileged population has a significantly higher proportion of LBW (Bhargava SK *et al.* 1985).

1.2. Low Birth Weight - Relation to Gestation and Intrauterine Growth

The general consensus is that in developing countries, particularly South Asia, an overwhelming majority of LBW infants have adequate gestation (are term) but are growth retarded (IUGR) (Gopalan 1994, Gillespie 1997). It would be of interest to examine some pertinent data from the region in this context. The recent multicentric data from India (NNF 1997) on over 37,000 live births reveals that *one-third (32.8%) of LBW babies are born preterm;* a proportion which certainly can not be totally ignored. An earlier analysis of hospital and community births in Delhi (India) had revealed that in the birth weight group of 1501-2000 g, 30-45% were preterm while the corresponding figure was 13-15% in the 2001-2005 g category (Bhargava *et al.* 1987). In the NNF study the prevalence of babies with birth weight <2000 g was 10.2%, <1500 g was 3.3% and <1000g was 0.7% (NNF 1997). On the basis of this data, it would be justifiable to analyze the gestational distribution and intrauterine growth in the region in greater detail.

1.2.1. Gestation

Accurate assessment of gestational age is difficult, particularly in the context of community births. **Table 2,** from the available data, compares the distribution of singleton live births according to different gestational ages from the various regions of India with similar studies from the developed countries. The depicted ICMR data refers to the multicentric studies of the Indian Council of Medical Research in rural areas and urban slums (Bhargava *et al.* 1990).

Table 2. *Comparison of gestation distribution of live births (in per cent)*

Author	Sheth	Bhatia	Ghosh	Ghosh	Mittal	Singh	Sheth	Babson	Bjerkedahl	ICMR	ICMR
Place	1972	1981	1971	1979	1976	1974	1972	1970	1973	1984	1984
Data	Bombay	Varanasi	Delhi	Delhi	Punjab	Delhi	Bombay	USA	Norway	India	India
Base	Hospital	Hospital	Hospital	Urban	Hospital	Hospital	Hospital	Hospital	Institution	Rural	Urban
Sample	Low SE			Comm.	High SE	High SE	High SE		Comm		Slum
Size	5336	5321	5031	6023	3163	3550	1242	40000	125485	3630	2534
Gestation (wk)											
<29	0.22	1.28	0.58	0.12	0.38		0.48	0.19		1.50	0.50
29	0.16	0.58	0.16	0.02	0.35		0.24	0.10		0.10	0.10
30	0.34	0.92	0.60	0.08	0.44		0.32	0.20		0.40	0.20
31	0.64	0.94	0.36	0.10	0.73		0.32	0.17	0.55	0.20	0.40
32	1.09	1.33	0.89	0.32	0.70	0.59	0.32	0.26	0.31	1.20	1.50
33	1.89	1.64	1.29	0.86	0.76		0.64	0.32	0.42	0.40	0.70
34	2.34	2.84	1.63	1.78	1.17	1.04	1.21	0.57	0.65	1.20	1.60
35	4.05	3.68	2.50	2.62	1.68	1.24	1.37	0.79	1.19	0.90	2.50
36	11.60	6.18	5.11	4.10	4.11	1.18	2.42	2.10	1.91	6.80	6.90
37	37.01	12.31	8.45	7.90	8.98	3.32	8.37	3.75	3.61	6.50	5.60
38	26.26	18.14	17.37	15.11	19.46	5.18	16.59	9.40	8.54	21.70	11.00
39	9.48	22.40	22.72	22.55	22.59	14.37	41.87	16.52	19.70	13.90	12.40
40	4.87	18.23	22.06	21.07	24.30	18.08	25.76	39.23	28.27	31.10	34.80
41	0.00	6.24	10.00	11.26	10.91	38.56	0.00	15.12	20.72	6.30	8.30
42	0.00	2.03	4.53	5.08	2.69	10.20	0.00	7.86	9.50	5.90	6.90
43	0.00	0.70	1.21	2.82	0.76	4.37	0.00	2.20	2.75	1.80	2.30
>43	0.00	0.32	0.48	4.22	0.00	1.46	0.00	0.57	1.88	1.10	4.3
37-41	77.67	77.56	80.66	77.88	86.23	86.80	92.90	84.02	80.84	78.50	72.1
<37	22.33	19.39	13.12	10.00	10.32	7.37	7.10	5.35	5.03	12.70	14.40
>41	0.00	3.05	6.22	12.12	3.45	5.83	0.00	10.63	14.13	8.80	13.50

In contrast to the developed countries, the process of labor appears to be initiated at an earlier period of gestation in a larger proportion of pregnant women. The incidence of premature birth (<37 weeks gestation) ranges from 7.1% to 22.3%, in comparison to about 5% in the developed countries. The latest NNF data from India provides a national estimate of 12.3% (NNF 1997) and a recent study from Kathmandu suggests a figure of at least 15% (Manandhar 1997). Only 2% of births occur at 36 weeks in western countries, while 3-12% of infants are born at this gestational age in India. In the Indian setting, the maximum number of births occur at 39-40 weeks gestation, whereas in the West the corresponding figure is 40-41 weeks (Table 2.). Apart from inter-regional difference, there is a marked variation in the gestational distribution in privileged versus under privileged segments of population in the same area. The contrast from the developed countries is very striking in the low socio-economic population, but the difference is considerably narrowed and even disappears in the privileged class. The gestational distribution in the region is therefore shifted to the left (about 1-2 weeks), more so in the underprivileged segments of the population.

From the foregoing, it would be logical to conclude that prematurity (especially borderline preterm births at around 36 weeks of gestation) too is a significant problem in the region and that its contribution to LBW can not be totally ignored.

1.2.2. Intrauterine Fetal Growth

A Comparison of fetal growth based on distance curves, reveals disparity from the developed countries and between regions and socio-economic classes. The socio-economically privileged population has higher mean birth weights at different gestation, the difference becoming pronounced after 34 weeks. The limited information on ultrasonography also reveals that the mean biparietal diameters values are lower than those from the developed nations in the third trimester and more so near term (Buckshee *et al. 1983).* It is evident that the magnitude of intrauterine growth retardation is maximal in the third trimester of pregnancy.

1.3. Recent Trends

An evaluation of the recent trends in the prevalence of LBW in the region may aid in the formulation of feasible strategies to tackle this public health problem. In recent years, an improvement in LBW prevalence has been reported from Sri Lanka (FHB 1992). An up-to-date analysis of this nature from India has yielded interesting information (Sachdev 1997a).

It is felt that there have been no differences in the reported mean birth weights and the proportion of newborns with LBW in the three decades between late 1960s and late 1980s (Srikantia 1989, Reddy *et al.* 1992). These inferences were based on comparison of data from disparate settings at various time points. Given the expected marginal magnitude of change in birth weight in two to three decades in a nation commencing epidemiological transition, these inferences from such a research design are not surprising. It would however, be more valid to analyze data from the same area at different time points.

On analysis of this nature (**Table 3**), a positive time trend for birth weight is evident in most of hospital based data and the solitary community study. The mean magnitude of improvement is marginal (52 to 126g). However, this has resulted in a greater reduction of LBW prevalence (by 8 to 12% usually and 22% in one report). These calculated mean improvements in birth weight are probably *underestimates* (Mathai 1995) since concomitant changes in other important associates have been ignored. With time, the mean birth order has also decreased and correction for this factor alone (Mathai 1995) enhanced the magnitude of change in the community study (rural and urban areas combined) from 70g to 100g (the first born newborns have lower weights than later births). The absent time trend in the two Delhi hospitals may be related to the relatively short gap in one report (Ramji 1996) and the fact that these institutions primarily care to the underprivileged population in whom the transition is expected to commence last of all. In one of these studies (Man Mohan *et al.* 1990), the higher percentage of term births could be regarded as the beginning, since term newborns have the best intrauterine growth as a group.

Table 3. *Recent trends in prevalence of LBW in India.*

Source	**Area**	**Setting**	**Comparison period (Mean gap in years)**	**Change in birth weight**	**Change in gestation**	**Change** in IUG
Satpathy 1990	Rourkela (Orissa)	Industrial hospital	1963 & 1986 (23)	MBW+74g LBW-34 vs 25%	NA	NA
Man Mohan 1990	Delhi	hospital (poor)	1969 & 1989 (20)	NA	Term*	0
Singhal 1991	Delhi	Hospital (better off)	1973-4 & 1985-7(13)	NA	NA	+
CMC 1995	North Arcot (TamilNadu)	Rural	1969-73 & 1989-93(20)	MBW+78g LBW-27 vs16%	M+0.7W PT-21 vs 16%	+p
		Urban	1969-73 & 1989-93(20)	MBW+52g LBW-19 vs11%	M+0.8W PT-20 vs 15%	+p
Mathai 1995	Vellore	Hospital	1969 & 1994 (25)	MBW+126g LBW-27 vs 15%	Me+0.3W PT-14 vs 10%	NA
Fernandez 1996	Mumbai	Hospital (poor)	1988 & 1995 (8)	LBW-60 vs 38%	0	NA
Ramji 1996	Delhi	Hospital (poor)	1986 & 1996 (10)	0	0	NA

*+: significant increase; +p: significant at some gestations; -: significant decline; 0: no significant change; IUG: intrauterine growth; M: mean; Me: median; MBW: mean birth weight; NA: not available; W; gestation in weeks; *calculated in comparison with earlier study values cited by Bhargava et al. (1985).*

The slender improvement in birth weight is probably contributed to by increases in both gestation and birth weight at different gestations (intrauterine growth). The mean improvement in gestation was again marginal (0.3 to 0.8 weeks) and was not uniformly observed. However, these marginal changes in mean gestations resulted in greater improvement in prematurity rates (by 4 to 5%).

These improvements in the prevalence of LBW in the absence of any specifically targeted effective functional programme have important managerial implications: (a) betterment in the LBW prevalence is possible even with the prevailing development scenario of the region; (b) both intrauterine growth and gestation are significant for enhancing birth weight; and (c) an allround, integrated approach is likely to yield dividends rather than a narrow (food supplementation based) strategy.

2. CONSEQUENCES OF LBW

LBW newborns represent a heterogeneous group of term and preterm infants with varying risks in subsequent life. The adverse consequences of LBW, including the different types, have been extensively documented in the literature. This section is restricted to a brief delineation of those consequences of important public health significance in the context of developing countries, particularly South Asia to highlight the need for institution of remedial measure. In this context, the distinction between growth retarded and preterm infants has usually not been resorted to in the relevant literature.

2.1. Survival

In consonance with reports from the developed world, the early neonatal mortality in large birth weight cum gestational age blocks has a curvilinear appearance, increasing in all directions from a low central range (Bhargava 1985). The striking inverse relationship between birth weight and infant morbidity and mortality has been documented by several studies from the region (Bhargava 1985 a, Tabib 1987, Bhutta 1990; FHB 1992, Bhutta 1997). The recent NNF multicentric data on over 30,000 births confirms this even in a secondary and tertiary level care setting (NNF 1997). In Delhi, a community based longitudinal study of infants with birth weights of 2000g or less, revealed that over a six year period two-third of them had died, mortality being especially high in the neonatal period and decreasing progressively till 3 years of age (Bhargava 1984).

2.2. Growth

LBW survivors demonstrate significant growth retardation, as reflected by lower body weights, heights and head circumferences, in comparison to normal weight peers (Bhargava 1976, Bhargava 1983, Kalra 1983, Bhargava 1985b, Bavdekar 1994, Bhargava 1995). Although there is some tendency for catch up growth, the deficits persist even up till 14 years of age (Bhargava 1995). The catch up is more for the preterm births in contrast to the growth retarded subjects. There is evidence of delayed skeletal growth and maturation in children aged between 6 to 10 years (Bhargava 1980). While delayed puberty has been reported in LBW children (Fledelius 1953, Bhargava 1980b), an earlier onset of menarche (preterm - 6 mo and growth retarded - 1 year) was documented in a longitudinal follow up study (Bhargava 1995). A similar observation has been made from the developed world setting also (Westwood 1983). This raises the possibility of an additional handicap for the continuing growth retardation in LBW infants - an earlier fusion of epiphysis resulting in a greater adult height handicap.

The above observation pertain to Indian LBW infants who were largely drawn from relatively poor Indian communities and continued to grow and develop during their childhood in the same sub-optimal socio-economic conditions. It may, therefore, be argued that these children continued to labour under the same conditions of relative deprivation that were operative at the time of their birth, and which in the first instance were responsible for their LBW. *These studies do not, therefore, provide an adequate answer to the question as to whether the effects of the initial handicap of LBW in relatively poor communities can be reversed by and overcome in a vastly improved (postnatal) physical environment totally free from socio-economic and nutritional constraints on growth and development* (Gopalan 1994).

To seek an answer to this question, we need to look at growth performance of LBW children under optimal conditions. In a study of this nature (Proos 1992), the effects of adoption soon after birth of poor Indian infants (81% LBW) into wealthy Swedish families were evaluated. While marked catch up growth was seen in childhood (mean stunting prevalence reduced from 62% to 20% after 2 years), inter-individual height and weight differences that existed at birth persisted in these children. The mean attained adult height (154 cm) of the adopted Indian girls was just 1 cm higher than the mean height of poor adult women living in India and significantly lower than that for more affluent women in India (159 cm). Girls who were stunted at infancy when they were adopted were also significantly shorter in adulthood than their non stunted peers. The improved early childhood growth in these adopted girls had hastened the onset of menarche and thus cut short the period of rapid pre-menarcheal growth. Similar inference emerge from review of four other studies (Martorell 1994) in which undernourished children from poor families were adopted by age five into middle class families; the adoptees did catch up to some extent, but not all the height deficit suffered was made up.

From the foregoing, it would be reasonable to conclude that LBW suffer growth retardation in later life which persists till adulthood and that effects of IUGR cannot be entirely reversed by even ideal environment and nutritional inputs in postnatal life. These growth retarded adult women (stunted and underweight) are likely to give birth to LBW babies thereby perpetuating a vicious cycle through generations.

2.3. Development

Longitudinal studies from this region reveal that LBW infants demonstrate retardation in motor, adaptive, personal, social and language development in the first five years of life (Bhargava 1982, Bhargava 1984). A report suggests that uncomplicated preterms as a group can demonstrate catch up with normal peers in the motor and mental scales by 18-24 months age (Choudhari 1991). Some of the developmental retardation can be argued to be a result of the continued socio-environmental deprivation.

2.4. Adult Diseases

Recent studies have brought to fore even more sinister possible late effects of LBW which may become manifest only in late adult life. These observations, briefly outlined below, lend an ominous new dimension to the traditionally accepted consequences of LBW.

Coronary heart disease (CHD) is common in the Indian sub-continent and the rates are rising (Chadha 1990, Fall 1997). These high rates, which rise further in migrants (Singh 1995), are not explained by known risk factors including obesity, hypertension, smoking and raised cholestrol. Recent evidence indicates that CHD in the Indian sub-continent is associated with a particular metabolic profile, the *insulin resistance syndrome,* which includes impaired glucose tolerance or non insulin dependent diabetes, insulin resistance, raised serum triglyceride and low HDL cholestrol concentrations, abnormal plasma clotting factors and central obesity (McKeigue 1991).

Following Barker's initial report from Hertfordshire, England (Barker 1989), several subsequent global studies have confirmed the *association* between LBW, especially SFD (Barker 1993), and CHD (Rich-Edwards 1995, Fall 1997). The trends in cardiovascular disease with birthweight parallel similar trends in cerebral stroke (Martyn 1996) other major risk factors for CHD, including non insulin dependent diabetes mellitus, hypertension (meta-analysis of 32 studies by Law 1996), and disordered lipid metabolism and blood coagulation (Barker 1995). The "fetal origins hypothesis" has been proposed as an explanation for these *associations*, namely, that undernutrition *in utero* leads to fetal adaptations that permanently after the physiology and metabolism of the body that lead to cardiovascular disease in adult life.

It is tempting to postulate this "fetal origins hypothesis" as the alternative explanation for the epidemic of CHD and non insulin dependent diabetes in India. Concrete evidence of a similar association between CHD and LBW has recently been reported from South India (Stein 1996). A report from Pune suggests that components of the insulin resistance syndrome may be apparent in early childhood (Yajnik 1995). Among 201

four-year old children, those with lower birthweight had higher plasma glucose and insulin concentrations after an oral glucose load, independently of their current size.

The "fetal origins hypothesis" is based on epidemiological evidence of associations and a cause and effect relationship can not be automatically implied. The hypothesis has been criticized on this and other epidemiological reasoning. Nevertheless, the suggestive evidence linking LBW and adult disease adds a new dismal dimension to the possible consequences of LBW.

3. ETIOLOGY OF LBW

From the preceding sections, it is obvious that LBW is a major public health problem in South Asia which needs to be addressed on an urgent basis. In order to plan and institute meaningful interventions, it is pertinent to reveiw the various factors which have been reported to be a cause of LBW. The literature is replete with various studies which have attempted to answer this question and several exhaustive reviews on the topic have also been published including from the region (Kramer 1987, Srikantia 1989, Institute of Medicine 1990, Bhargava 1990, Sethi 1991, Kramer 1993, Gopalan 1994 & 1994a, Hirve 1994, WHO 1995a, Gillespie 1997, Gulmezoglu 1997, Deshmukh 1998). Before drawing any valid conclusions from such literature, it would be useful to briefly consider the pertinent methodological issues.

3.1. Methodological Considerations

The important methodological issues involved in inferring a cause and effect relationship for LBW on the basis of available studies have been elegantly summarized by Kramer (1987). It is generally recognized that the etiology of LBW is multifactorial since many factors can influence the length of gestation or the rate of intrauterine growth. Nevertheless there is considerable confusion and controversy about the factors that have independent effects on LBW as well as the quantitative importance of these effects. The various reasons for this include: (i) Failure to distinguish between IUGR and prematurity as different causes of LBW; (ii) A given factor might affect the middle or upper range of the birth weight or gestational age distribution but not those infants identified by the conventional cut-off points as SFD or prematures; (iii) "Failure to distinguish markers or associated factors from true causal determinants. Many of the potential determinants are highly associated and their effects are thus mutually confounded. Failure to control for the confounding variables can lead to erroneous associations between a factor and IUGR or prematurity. For example, anaemia is highly associated with under nutrition, and if insufficient caloric intake is a true cause of IUGR, failure to control for such intake will produce an association between anaemia and IUGR. Anaemia, however, may merely be a marker of poor maternal nutrition, and not a true causal determinant of IUGR. Thus if anaemia has no independent effect on intrauterine growth, routine use of iron supplementation during pregnancy will have no impact on the rate of IUGR" (Kramer 1987); (iv) Failure to perform a "path analysis" on the identified factors resulting in lumping together of underlying or indirect determinants (for example, literacy or age at marriage) with direct or immediate determinants (for example, maternal anthropometry or food intake); (v) The large number of factors that could theoretically influence birth weight indicates that each one of them may have a rather small individual impact. Unequivocal demonstration of statistical significance for small effects requires the use of large sample sizes as well as control for confounding and other non-randon sources of variation.

Majority of the research in relation to causation of LBW has relied on observational methods. It is only recently that well designed experimental methods have been utilized to unambiguously demonstrate a cause and effect relationship. These randomized clinical trials have enabled the impact of the factors that are amenable to experimental intervention to be also *quantified* for their effect. However, not all possible factors can be subjected to an experimental design (for example, race/ethnicity, socio-economic status or age of child bearing).

3.2. Intervention Based Causes of LBW

It is generally believed that the solution to LBW in the region lies in improvement of intrauterine growth. Consequently, majority of relevant research and suggested interventions have focussed on this aspect only. However, from the preceding sections it is apparent that for maximum benefit, efforts should also be directed at gestational duration because: (i)Nearly one third of LBW newborns are born preterm; (ii) The gestational distribution reveals a shift to the left in comparison to developed nations; and (iii) Positive time trends in prevalence of LBW in India have been associated with improvements in both intrauterine growth and gestation. In this context, improvement should be envisaged as a shift of the gestational distribution to the right (say by one week) even among term newborns (37 to 41 weeks gestation), rather than a classical decline in preterm births. It is conceivable that the factors affecting intrauterine growth and gestation are different and should, therefore be searched for separately.

LBW is multifactorial in etiology - nearly 50 individual factors have been evaluated for their role in causing prematurity and IUGR with statistically significant associations having been documented for several of them. In order to formulate a meaningful public health intervention policy, it would be useful to group the factors (Kramer 1987) by the: (i) strength of available evidence; (ii) potential for public health impact, which depends on both the magnitude of the effect, e.g., the number of grams of birth weight attributable to it or the relative risk of IUGR, and its prevalence in the population; and (iii) modifiability. An analysis of this nature (as suggested by Kramer 1987) is summarized in **Table 4**. This analysis represents a synthesis of the currently available evidence, which is largely based on exhaustive meta-analysis or overviews including unpublished electronic database information on randomized controlled trials (RCTs) from the Cochrane Library (Kramer 1987, Kramer 1993, WHO 1995 and 1995a, Kelly 1996, Gulmezoglu 1997, Cochrane 1997). The analysis is restricted to factors of importance in the developing countries, particularly this region, and also excludes those factors related to medical complications during pregnancy or evaluated in selected groups of suspected fetal growth retardation. In case of conflicting conclusions arising from observational or experimental study designs, the latter inference was selected. It should be borne in mind that no matter how convincing the evidence that a given factor is causally related to intrauterine growth or gestational duration, there is no guarantee that its elimination or reduction will lead to lower infant mortality or childhood morbidity (Kramer 1987) since there is hardly any data exploring this possibility.

Table 4. *Intervention based assessment of factors evaluated for their effects on gestation duration and intrauterine growth in developing countries.*

Intervention based assessment	Intrauterine growth	Gestation duration
Causal effect ruled out with a high probability	. Protein status/intake	. Infant sex . Paternal height and weight . Parity . Protein status/intake
Causal effect unlikely, but evidence insufficient to rule out totally	. Marital status . Maternal Psychological factors . Sexual activity . Prior spontaneous abortions . Prior induced abortion . Prior still birth or neonatal death . Prior infertility . In utero exposure to diethylstilbestrol . Vitamin B^{12} . Zinc and copper . Calcium, Phosphorous and	. Racial/ethnic origin . Maternal height . Maternal hemodynamics . Marital status . Sexual activity . Prior still birth or neonatal death . Prior infertility . Gestational weight gain . Vitamin B^{12} . Zinc and copper . Calcium, phosphorous and Vitamin D . Other vitamins and trace

	Vitamin D . Vitamin B[6] . Urinary tract infection . Genital tract infection . Caffeine and coffee consumption . Use of marijuana	elements . Urinary tract infection . Alcohol consumption . Caffeine and coffee consumption . Use of marijuana . Narcotic addiction
Causal effect uncertain, but importance unlikely owing to small effect magnitude or low prevalence	. Birth or pregnancy interval . Heavy alcohol consumption . Narcotic addiction	. *In utero* exposure to diethylstilbestrol . Birth or pregnancy Interval . Prior induced abortion . Vitamin B[6]
Causal effect established but importance unlikely, owing to small effect magnitude or low prevalence	. Antiplatelet agents (Aspirin)	. Antiplatelet agents (Aspirin)
Causal effect established and important, but unmodifiable	. Infant sex . Parity	
Causal effect established and important, but modifiable over long term	. Maternal height . Socio-economic conditions* . General morbidity, episodic illness	. Socio-economic conditions*
Causal effect established, important, and modifiable over short or intermediate term	. Pre-pregnancy weight . Very young maternal age* . Maternal education* . Gestational weight gain . Caloric intake . Malaria! . Tobacco chewing	. Pre-pregnancy weight . Very young maternal age* . Maternal education*
Causal effect uncertain, but potentially important and modifiable	. Maternal hemodynamics . Strenuous maternal work . Folic acid . Iron and anaemia . Other vitamins and trace elements . Magnesium . Cigarette smoking and indoor smoke . First antenatal care visit . Number of antenatal care visits . Quality of antenatal care Number of antenatal care	. Stress and anxiety . Maternal work . Caloric intake . Other vitamins and trace elements . Iron and anaemia . Folic acid . General morbidity, episodic illness . Malaria! . Genital tract infection . Cigarette smoking and indoor smoke . Tobacco chewing, environmental toxins . First antenatal care visit visits . Quality of antenatal care

* These factors have indirect causal influences, *i.e.,* they affect direct determinants but have no independent causal impacts of their own. Socio-economic status has been subdivided into maternal education and socio-economic conditions because of the temporal modifications required for their modification.

! For endemic areas.

3.2.1. Adolescent Pregnancy

Maternal age does not appear to be an important independent determinant of intrauterine growth or gestational duration (Kramer 1987). However, a very young age exerts indirect effects by influencing

maternal height, weight and nutrition. In a recent report on 242 adolescent pregnancies (10-18 years) from Gorakhpur in Uttar Pradesh, India (Kushwaha 1993), the LBW and prematurity rates were 67% and 33%, respectively. The corresponding figures for mothers below 17 years of age were 83% and 33%, respectively. The indirect causal effects of a very young maternal age are important, because interventions aimed at delaying pregnancy in young adolescents might be more effective or more practicable than attempting to influence their height, weight or gestational nutrition (Kramer 1987, Gopalan 1994). Although the average female age of first marriage in the region has steadily increased in the past few decades (UNICEF 1996), there is still considerable scope for improvement as illustrated in **Table 5.**

Table 5. *Average age (years) of first marriage in females.*

Country	Average age (yrs)	Source
Bangladesh	<15	UNICEF 1996
Bhutan	>20	UNICEF 1996
India	15-17.5 (most states)	UNICEF 1996
	19.6 (20.3%<18)*	SRS 1993
Maldives	17.5-20	UNICEF 1996
Nepal	15-17.5	UNICEF 1996
	16.4	Pradhan 1997
Pakistan	17.5-20	UNICEF 1996
Sri Lanka	>20	UNICEF 1996

* Refers to female age at "effective marriage".

3.2.2. Nutrient Supplementation

The "true" potential of this intervention, which can be modified over a relatively short term, needs a critical analysis. Meta-analysis (Kramer 1993, Cochrane 1997, Gulmezoglu 1997) of randomized trials of balanced energy/protein supplementation (<25% protein/daily consumption) reveal "*only a modest increase in maternal weight gain and fetal growth, even in undernourished women, and no long term benefits to the child in terms of growth or neurocognitive development".*The weighted mean benefit in birth weight was calculated as 30g (95% CI 1g to 58g) with, at best, a "clinically trivial effect on mean gestational age", which though statistically non-significant, resulted in a highly consistent reduced risk of prematurity (Kramer 1993). Another optimistic estimate of the "modest" increase in birth weight is about 100g (Gulmezoglu 1997). Three recently completed but unpublished trials from rural areas of India are nearer the former (Kramer 1993) lower benefit estimate. Surprisingly, there was no evidence of a larger effect in undernourished women; indeed the effect was actually smaller (weighted mean 24g vs 45g) (Kramer 1993). The "modest" benefits of such supplementation have been explained by the rather "modest" net increases in energy intake achieved. The average documented net increase were 200-250 kcal/day and in the trials recording relevant data, non compliance was substantial (Kramer 1993). The magnitude of non-compliance reported from research settings is likely to be magnified in the true operational setting of large scale programmes. In a recent study in 174 pregnant beneficiaries of food supplementation (500 kcal/day protocol) in the Integrated Child Development Services (ICDS) Programme, only 24% of those registered actually collected or received supplementary nutrition. Of those who collected, only 11% consumed 75-100%, and 36% less than 50% of the supplementary nutrition. All of them shared the supplementary nutrition; about 42% of them shared more than 75% of the food with their family members (Nayar 1997).

Neither balanced isoenergetic protein supplementation nor high protein supplementation have proved beneficial to either mother or infant and there is a suggestion that these may even impair fetal growth (Kramer 1993, Cochrane 1997, Gulmezoglu 1997). Similarly, isolated micronutrient supplementation with either Zinc, Vitamin D, Pyridoxine or Iron has not resulted in clinically important or statistically significant positive effects on birth weight. Routine magnesium supplementation seems to have decreased the incidence of term LBW but the trials included in this systematic review have either a high number of exclusions or weaknesses in randomization procedures which makes the results inconclusive. Although, routine iron supplementation increased serum ferritin and haemoglobin levels, there were no differences on clinical outcomes of the fetus. The systematic review on routine folate supplementation shows a reduction in the incidence of term LBW. However, most of the trials defined their populations poorly and did not give details of the randomization procedures (all of these trials were performed in populations where iron supplementation was routine). Unfortunately, there is inadequate data from populations where these micronutrient deficiencies are more common; and relevant research in this context has been recommended for Zinc, Iron, Folate and Magnesium (Cochrane 1997, Gulmezoglu 1997).

In a systematic review of relevant studies (Cochrane 1997), *nutritional advice,* either on one-to-one basis or to groups of women, proved effective in increasing the pregnant women's energy and protein intakes but the increases were lower than those reported in trials of actual protein/energy supplementation. It was felt that the implications for the fetal, infant or maternal health cannot be judged from the available trials. A recent study from Canada reported an average benefit of 55g in birth weight in adolescent pregnancy with nutrition intervention individualized as a function of diagnosed risk (Dubois 1997). Imparting relevant nutrition advice assumes significance in the context of developing countries since dietary intake in pregnancy is strongly influenced by cultural beliefs and practices. Data from 18 different cultures documents that food restriction is practiced during pregnancy, in order to facilitate an easier labor and delivery, by lowering birth weights (Brems 1988). Quantitative data from rural South India demonstrates reduced intake in pregnancy, particularly between 5-7 months and months 8/9 the average caloric intake being 1700 kcal (Hutter 1996).

From the foregoing, it is evident that routine nutrient supplementation instituted through large scale programmes will, at best, result in marginal benefits in birth weight. Considering the various aspects of food supplementation programmes, particularly the financial perspective in the region, it may be pragmatic to resort to sound nutritional advice as an alternative economic intervention.

3.2.3. Energy Expenditure, Work and Physical Activity

Cross sectional data from Ethiopia indicates that among poor women subsisting on a calorie intake of less than 70% of the recommended intake, birth weights of offspring and weight gains in pregnancy of women who were actively engaged in heavy labor were significantly lower than the corresponding values for women who were not so engaged [mean (SD) birth weights 3068g (355) vs 3270g (368)] (Tafari 1980). However, the effect of energy expenditure, work and physical activity on intrauterine growth is uncertain from a systematic review of the available data in developing countries (Kramer 1987). Nevertheless, such an effect would be consistent with biological principles, at least for work involving high energy expenditure. Increased effects, if confirmed, would identify a factor of major importance in developing countries, where women often continue strenuous physical work through pregnancy (Kramer 1987, Gopalan 1994).

3.2.4. Maternal Anthropometry

Various maternal anthropometric criteria (pre-pregnancy weight, height, weight gain during pregnancy, attained weight at mid pregnancy and body mass index) have been significantly associated with intrauterine growth or prematurity. These parameters should be viewed as "predictors" of LBW to be used for risk detection and intervention targeting, rather than as representing direct factors amenable to intervention. In the WHO multicentric study (WHO 1995a), pre-pregnancy weight (OR 2.55, 95% CI 2.3-2.7), attained weight at 20 weeks (OR 2.77, 95% CI 2.3-3.2) and attained weight at 36 weeks (OR 3.09, 95% CI 2.7-3.4) were the best predictors for delivering SGA babies while pre-pregnancy weight (OR 1.42, 95% CI 1.3-1.5) and pre-

pregnancy body mass index (OR 1.33, 95% CI 1.1-1.4) were the best predictors for a preterm delivery. Obviously, attained weight at 36 weeks of pregnancy does not represent a useful indicator for preventing LBW as it would be too late to implement effective intervention.

3.2.5. Maternal Infections

Amongest the various researched maternal infections in pregnancy, systematic reviews indicate a beneficial effect with malaria chemoprophylaxis in endemic areas (Cochrane 1997, Gulmezoglu 1997). Overall, malaria chemoprophylaxis was associated with higher maternal haemoglobin levels and birth weights. These effects were also more prominent in primigravidae, who are known to be more susceptible, showing an increase in mean birth weight of 112g (95% CI 41-183g). (Gulmezoglu 1997). The current incidence of malaria is high in Chittagong Division of Bangladesh, Southern Bhutan and regions of Sri Lanka (UNICEF 1996).

3.2.6. Other Factors

The comprehensive meta-analysis by Kramer (1987) suggests that *maternal socio-economic status (including maternal education)* have no independent effect on intrauterine growth. "*It is nevertheless, likely that low socioeconomic status may well be a social "cause" of other nutritional, toxic, anthropometric, or infectious factors that may themselves be causal determinants. As with maternal age, indirect causal effects may be important for intervention. The most easily modifiable aspect of socio-economic status is maternal education, although, in the long term, family income could also be influenced"* (Kramer 1987).

There is scarce well controlled data from the developing world evaluating the impact of *antenatal care* on LBW (Kramer 1987). Nevertheless, organizing access to quality antenatal care should be viewed as potentially important since it also offers opportunities for counselling and risk detection apart from its necessity for maternal health.

Data from developed countries indicates that strategies to reduce *smoking* during pregnancy are associated with increased birth weight and lower rate of term LBW (OR 0.80, 95% CI 0.65-0.98) (Gulmezoglu 1997). *Smoking and tobacco chewing* during pregnancy does occur in the region; the precise magnitude, however, is uncertain.

4. POSSIBLE PUBLIC HEALTH INTERVENTIONS TO REDUCE LBW

It is obvious that the suggested public health interventions to reduce LBW should be specific for the targeted population and directed at the quantitatively important modifiable determinants of intrauterine growth and gestation. The quantitative importance of a factor is dependent on its individual effect magnitude and prevalence; however, issues such as cost-effectiveness, cultural acceptability, and political feasibility are also important determinants of any intervention programme (Kramer 1987). On the basis of the focused review in the preceding sections, the suggested public health interventions are summarized in **Table 6.** Some interventions (for example, nutrient supplementation) could be preferentially targeted towards "at risk" women identified by anthropometry. Over the long term, general improvements in nutrition, living conditions, water supply and sanitation should increase maternal height and reduce communicable diseases during pregnancy. It should also be borne in mind that no matter how convincing the evidence that a given factor is causally related to intrauterine growth or gestational duration, there is no guarantee that its elimination or reduction will lead to amelioration of all adverse consequences of LBW including lower infant mortality and childhood morbidity (Kramer 1987).

Table 6. *Suggested public health interventions to reduce LBW*

Interventions
• Delaying child bearing in adolescents
• Efforts to improve nutrition of women, particularly in pregnancy
Options for pregnant women:
• Nutrition advice
• Food supplementation

- Access to antenatal care
- Advice on adequate rest in pregnancy, especially in undernourished women
- Malaria prophylaxis or treatment in endemic areas
- Efforts to stop smoking and reduce tobacco chewing (places where common practice)
- Improve female education, especially maternal
- General improvements in nutrition
- General improvements in socio-economic conditions
- Improve sanitation and water supplies

The expected benefit with each solitary intervention is small. Further, multiple pathologies coexist in the region which often adversely interact with each other making their combined effect greater than the simple additive effect of each condition. It has been appropriately questioned whether a single intervention is likely to reduce, in a population, the overall rate of a multicausal outcome like LBW which is so dependent on socio-economic disparities accumulated over generations (Gulmezoglu 1997). The maximum benefit is, therefore, likely to accrue from institution of a combination of interventions.

Wherever possible, the suggested interventions should be amalgamated with the beneficial customs. For example, it is a common practice in India to deliver the child, particularly the firstborn at the parental home which offers benefits in terms of adequate rest and nutritional intake in the pregnancy.

5. FUTURE PERSPECTIVE

5.1. Are The Targets Realistic?

The World Summit for Children had set a goal of reduction of the LBW prevalence to less than 10% (Sachdev 1994). This translates into a prevalence reduction of 15% to 40% (or by 60% to 80% of the current estimates in **Table 1)** in the available 3 years till 2000 A.D. In order to ascertain if these targets are achievable by even 2010 A.D. (gap of 13 years), apart from the regional experience, it would be useful to look at the changes in developed countries **(Table 7).**

Table 7. *Changes in birth weight in developed countries.*

Source	Place/ Country	Period	Improvements in	
			Birth weight	LBW prevalence
Lee 1980	USA National	1950 to 1975		No change
Kessel 1984	USA National (States with both weight & gestation data)	1970 to 1980	Median 60g	7.39% to 6.31% (14% reduction)
Johar 1988	Omaha (USA)	1935 to 1985	No change (term newborns)	No change (term new borns)
Evans 1989	ICE Countries*	1970 to 1984	40-100g (in most;	derived from graph)
Chike-Obi 1996	Illinois (USA)	1950 to 1990	33g (Black male) to 74g (White female)	~ 7% to 6% (White) ~ 13 to 14% (Black) (Derived from graph)

* The International Collaborative Effort (ICE) countries are USA, England and Wales, Denmark, Bavaria and North Rhine Westphalia of the Federal Republic of Germany, Israel, Japan, Norway, Scotland and Sweden.

In this context, it would be pertinent to examine the birth weight changes in the developed countries for the preceding few decades to account for the developmental gap between the industrialized and developing countries. Even in the developed nations, a few decades earlier, there was no consistent increase in birth weight or reduction in LBW prevalence (**Table 7**). In certain regions, no changes could be demonstrated over 25 or 50 years. Wherever evident, the increases in average birth weight were modest, ranging from 33 to 100g in 10 to 40 years, with a corresponding decrease in LBW prevalence of about 1% (nearly 14% reduction from the original value). In the USA, the decade of 1970s was a period of rapid growth of the number and scope of federal state and local health programmes emphasizing maternal and child health including nutrition programmes (Special Supplemental Food for Women, Infants and Children [WIC Programme] and the Department of Health and Human Services sponsored programmes providing such services as prenatal care, family planning, care of high risk pregnant women and newborns, regional perinatal care, health supervision and care of infants and children, care of pregnant adolescents, and genetic diagnostic and counseling services; yet, the median increase in birth weight was only 60g with a resultant decline in LBW prevalence of 1% (Kessel 1984). Another noteworthy aspect is the difference in level between the median

birth weights for different countries or states or even amongst races in the same region (blacks and whites), and the way the relative positions tend to remain steady over the years (Evans 1989, Chike-Obi 1996).

The secular changes in birth weight from India (**Table 3**) compare favorably with those from the developed nations (**Table 7**). However, almost similar improvements in average birth weights resulted in vastly different changes in LBW prevalence (8 to 12% vs 1%); indicating the importance of efforts to achieve even modest changes in the region. This difference is a reflection of the comparative birth weight distribution below the cut-off point of 2500g in these settings.

Considering the earlier time trends from the developed countries and India, it is evident that it would be virtually impossible to achieve the stated targets by even 2010 A.D. An *"optimistic"* target in this period would be an average increase in birth weight of about 100g with a corresponding reduction in LBW prevalence of 10-12%.

5.2. Public Health Interventions

Although there is no specifically instituted programme for control of LBW in India, Bangladesh and Pakistan, majority of the suggested public health interventions (**Table 6**) are being addressed through the ongoing programmes for population control, maternal and child health, nutrition and literacy. In *India,* the important relevant programmes include the Reproductive and Child Health Programme (Child Survival and Safe Motherhood Progr focussing on providing access to antenatal care and family planning including delaying pregnancy in adolescents; the Integrated Child Development Services Programme where apart from new initiatives focussed on adolescent girls, pregnant mothers are given a nutritional supplement of 500 kcal; and Literacy Mission. In *Bangladesh* also, the nation wide Maternal Child Health Programme has provision for antenatal care and family planning whereas the recently instituted Bangladesh Integrated Nutrition Project (BINP) focuses on family planning advice to newly wed couples and nutrition education and supplementary nutrition (600 kcal) to pregnant women. The BINP, a World Bank assisted project, currently covers only 6 thanas (sub districts) and will be extended to 40 thanas (out of 460) by the end of 1998 and the entire country by 2000 AD. In addition, NGOs like Bangladesh Rural Advancement Committee also provide supplementation and counselling to pregnant women in their operational areas (Roy 1997, Islam 1997). Similarly, in *Pakistan* the maternal care programmes, population planning initiatives and nutritional supplementation in pregnancy (part of safe motherhood initiative) have components addressing the problem of LBW (Bhutta 1997). In addition, in these countries the ongoing initiatives for general improvements in socio-economic development, nutrition, literacy and water supply and sanitation are expected to have a beneficial effect on birth weight in the long term.

It is apparent that in a multi-dimension problem like LBW, no specific vertical programmes can be formulated to address the issue on a war footing. The ongoing initiatives in these countries are in the right direction but may need operational strengthening and convergence to yield the maximum benefit. An examination of the specific components of nutrition and other advice in pregnancy may lead to improvements like specific dietary advice, adequate rest and stopping smoking and tobacco chewing (in areas where these habits are prevalent). Initiatives to provide maternity leave for women in unorganized sector are worth considering. Provision of malaria chemoprophylaxis and treatment for pregnant women in hyperendemic areas deserves exploration. The relative cost effectiveness of providing nutritional supplementation to all pregnant women in preference to nutritional advice in pregnancy must be scientifically explored in a true programme setting and the results should determine the need for investing a large proportion of the available health budget for the former option on a routine basis.

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NATIONAL NUTRITION MONITORING BUREAU

REPORT OF
SECOND REPEAT SURVEY-RURAL

(1996-97)

SUMMARY

The National Nutrition Monitoring Bureau (NNMB) had carried out the first repeat survey during 1988-90 in the same villages, which were surveyed during 1975-79 to assess time trends, if any, in diet and nutritional status of rural population. The results indicated that there was reduction in the prevalence of 'moderate' and 'severe' degree of malnutrition (<75% weight for age of NCHS) in preschool children, with a concomitant increase in the proportion with 'normal' and 'mild' degree malnutrition. But, there was no perceptible change in the dietary intakes. A second repeat survey was undertaken during 1996-97 to assess whether the time trends observed during the first repeat survey actually persisted and were really true. The diet and nutrition surveys were conducted in the same villages, which were covered earlier both during the years 1975-79 and 1988-90. In this survey, 120 villages in 8 districts in each State were surveyed. Of these, 90 villages were from those, which were covered both in 1975-79 and 1988-90, while the remaining 30 villages formed a new set. From each of the selected villages, 20 households (HHs) were chosen by adopting 'cluster sampling method'. Thus in each State, a total of 2400 HHs were targeted for survey. A total of 6.551 households were covered for dietary assessment and about 60,601 individuals from 13,426 HHs for anthropometry and clinical survey. A household schedule was administered to obtain demographic and socio-economic data. In each village, all the 20 selected HHs, were covered for nutrition assessment. Anthropometric measurements like height, weight, arm circumference and fat fold at triceps was taken on all the available members of the 20 households. These subjects were also clinically examined for the presence of different nutritional deficiency signs. Among the ten households (every alternate HH) selected for dietary assessment, one day weighment diet survey was conducted in 5 HHs and 24 hour recall method of diet survey in the rest. In the present report, the results pertaining to the States of Kerlala, Tamil Nadu, Karnataka, Andhra Pradesh, Maharashtra, Orissa and Gujarat are presented.

Cereals and millets formed the bulk of the dietaries. Consumption of pulses was less than RDI in all States except in the State of Karnataka (43 g). The consumption of green leafy vegetables formed only 17-27% of RDI in different States, with an average for all the States of about 15 g. The deficit in the intake of other vegetables ranged from 3-50 percent of RDI. Except in the State of Gujarat, the intakes of milk were less than the recommended level of 150 ml. in all the States. In none of the States, the intakes of sugar and jaggery were adequate. The intakes of protein, energy, vitamin A, Thiamin and riboflavin were less than the RDI in almost all States. Calcium intakes were above the RDI (400mg) in all the States except in Orissa. In the case of iron, the deficit in intakes, as per the revised values ranged from 20 to 67 percent. For the first time, folate content of the diets was also assessed, the consumption of which was less than RDI of 200 mg in all the States, except Gujarat. The deficiency ranged from 17 percent in Maharashtra to 36 percent in Tamil Nadu. The proportion of HHs with energy inadequacy was 48%. The proportion of HHs consuming micronutrients less than the RDA was maximum with respect to iron (94%) followed by riboflavin (87%), vitamin A (88%), folic acid (79%) and thiamin (59%).

The consumption of cereals and millets and pulses was lower that in the previous two surveys, in all the States. A gradual increase was, however, noticed in green leafy vegetables consumption between 1975-79 and 1996-97. A gradual decline was noticed in the consumption of other vegetables between 1975-79 and 1996-97. Increasing trend in milk intakes was observed only in Kerala (+75 g), Tamil Nadu (+9g) and Karnataka (+5g) as compared to that of 1975-79, while a decreasing trend was observed in the rest of the States of Andhra Pradesh (-22g), Maharashtra (-17 g), Gujarat (-23g) and Orissa (-26 g). A Marginal change was observed in the intakes of fats and oils (1975-79: 14 g; 1996-97: 12 g). There was a decreasing trend in protein, energy, iron and calcium intakes, in general, between 1975-79 and 1996-97. Increased intakes of vitamin A were noticed in 1988-90 (282 µg) and 1996-97 (300 µg) as compared to 1975-79 (246 µg). There was a gradual increase in the intake of riboflavin (+0.09 mg), while there was a decreasing trend in thiamin intake in all the States between 1975-79 and 1996-97.

In the case of individuals the average consumption of most of the foodstuffs except roots and tubers was below the RDA. The consumption of qualitative foods such as green leafy vegetables, milk & milk products and sugar and jaggery was found to be grossly deficient particularly among pre-school children and adolescents. The intake of all the nutrients, except protein and folic acid (4-6 years) was below the RDI. The extent of deficit in the intake of vitamin A was high (67%) in 1-3 years. The extent of deficit in the intake of iron was about 17-41% and 22-43% among 13-15 years and 16-17 years respectively.

Among pregnant and lactating women the average intake of all the nutrients was lower than the RDI. The extent of deficit in the intake of important micronutrients such as vitamin A, calcium and iron among these women ranged between 11 and 70%.

A comparison of the socio-economic profile of the HHs surveyed in all the three surveys indicated that, in general, there was marginal improvement in the type of dwelling and occupational status of the Head of the HHs. The proportion of HHs with monthly per capita income of less than Rs. 30/- showed a significant decline. The average per capita income per month increased by about Rs. 33/-. However, the proportion of the HHs having no land increased from about 30% to about 41% between 1975-79 and 1996-97, while there was reduction in the proportion of HHs with more than 5 acres.

Only 7% of the preschool children had one or the other clinical signs of PEM, or vitamin A and B-complex deficiencies. The proportion of cnildren without any deficiency signs showed a gradual increase from 80.7% in 1975-79 to 93% in 1996-97. There was a decreasing trend in all the above mentioned clinical deficiency signs from 1975-79 to 1996-97. In the case of weight for age, in general, there was a declining trend in the proportion of severely malnourished children (<60% of NCHS) from 15 percent in 1975-79 to 6.2 percent in 1996-97, with concomitant increase in normal children from 5.9 percent in 1975-79 to 8.9% in 1996-97. There were no significant differences in the prevalence of under nutrition between boys and girls. The percentage of stunting decreased from 78.6 in 1975-79 to 57.8 in 1996-97, with a three fold increase in the percentage of better nourished children (>Mean - 1SD). There was no change in the percentage of wasting from 18.1 in 1975-79 to 18.5 in 1996-97. The percentage of underweight children with weights less than median-2SD of NCHS standards declined from 86.5 in 1975-79 to 62.3 in 1996-97. The decrease in the proportion of children with severe underweight (<Median-3 SD) appeared to be much higher (-24.5%) as compared to moderate undernutrition (-1.7%). At least two thirds of school age children were undernourished. Among the adults, the prevalence of chronic energy deficiency (CED) was 46% in males and 48% in females. There was a decreasing trend in the prevalence of chronic energy deficiency in both the sexes. The extent of CED declined from about 56% in 1975-79 to 46% in 1996-97. An increasing trend was observed in the proportion of 'normals', over weight and obese adults between 1975-79 and 1988-90.

Inspite of no positive changes in the dietary status, there was improvement in the nutritional status of preschool children (1-5 years) in terms of reduction in severe malnutrition (<60% weight for age) and stunting (low height for age). Since both height and weight recorded concomitant changes, the percentage of 'wasting' (low weight for height) was similar between the survey periods. There was also reduction in the prevalence of clinical malnutrition like kwashiorkor, marasmus, vitamin A deficiency and B-complex deficiency in preschool children. It was interesting to note that in the State of Kerala, there was increasing trend in the intakes of all the nutrients, while in the other States, in general, there was a decreasing trend. This was reflected in the overall improvement in the mean weights and heights of individuals in different age groups in both sexes. It is not clear as to how far the development in this State, with similar economic status, particularly with respect to social changes like female literacy is responsible for these changes. This requires to be studied in depth.

The land holding status over the past about 20 years indicates fragmentation of land holding size, indirectly leading to increase in food insecurity. An appraisal of the changes in some of the socio-economic factors indicates that, by and large, the improvement was only marginal. In fact, the proportion of landless seems to have increased in the sample studied. This, perhaps, explains as to reasons for no changes in the dietary pattern in the States surveyed during the past 2 decades. The improvement in nutritional status despite no perceptible change in overall intakes at the household level may be due to changes in non-

nutritional factors, such as improved water supply, reduction in infections, nutrition interventions and better health care.

(The survey was conducted by the National Institute of Nutrition, Indian Council of Medical Research, Hyderabad).

Who Executive Board Meeting 107/3

EB107/Conf. Paper No. 13 22 January 2001

(The following text will go to the May 2001 World Health Assembly)

The Executive Board,

Having examined the report on the global strategy for infant and young child feeding; (Note 1)

Reiterating the importance of reducing all forms of malnutrition as a central condition for human development;

Emphasizing, in particular, the significance of good nutrition for the health and development of infants and young children everywhere, and the crucial role of appropriate exclusive breastfeeding, complementary feeding and feeding practices in protecting and improving their nutritional status;

RECOMMENDS to the Fifty-fourth World Health Assembly the adoption of the following resolution:

The Fifty-fourth World Health Assembly,

Recalling resolutions WHA33.32, WHA34.22, WHA35.26, WHA37.30, WHA39.28, WHA41.11, WHA43.3, WHA45.34, WHA46.7, WHA47.5 and WHA49.15 on infant and young child nutrition, appropriate feeding practices and related questions;

Deeply concerned to improve infant and young child nutrition and to alleviate all forms of malnutrition in the world because more than one-third of under-five children are still malnourished - whether stunted, wasted, or deficient in iodine, vitamin A, iron or other micronutrients - and because malnutrition still contributes to nearly half of the 10.5 million deaths each year among preschool children worldwide;

Deeply alarmed that malnutrition of infants and young children remains one of the most severe global public health problems, at once a major cause and consequence of poverty, deprivation, food insecurity and social inequality, and that malnutrition is a cause not only of increased vulnerability to infection and other diseases, including growth retardation, but also of intellectual, mental, social and developmental handicap, and of increased risk of disease throughout childhood, adolescence and adult life;

Recognizing the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger, and that every effort should be made with a view to achieving progressively the full realization of this right;

Acknowledging the need for all sectors of society - including governments, civil society, health professional associations, non-governmental organizations, commercial enterprises and international bodies - to contribute to improved nutrition for infants and young children by using every possible means at their disposal, especially by fostering optimal feeding practices, incorporating a comprehensive, holistic and strategic approach;

Noting the guidance of the Convention on the Rights of the Child, in particular Article 24, which recognizes, *inter alia,* the need for access to and availability of both support and information concerning the use of basic knowledge of child health and nutrition, and the advantage of breastfeeding for all segments of society, in particular parents and children;

Conscious that despite the fact that the International Code of Marketing of Breastmilk Substitutes and relevant, subsequent Health Assembly resolutions state that there should be no advertising or other forms of promotion of products within its scope, new modern communication methods, including electronic means, are

currently increasingly being used to promote such products; and conscious of the need for the Codex Alimentarius Commission to take the International Code and subsequent relevant Health Assembly resolutions into consideration in dealing with health claims in the development of food standards and guidelines.

Mindful that 2001 marks the twentieth anniversary of the adoption of the International Code of Marketing of Breastmilk Substitutes, and that the adoption of this resolution provides an opportunity to reinforce the International Code's fundamental role in protecting, promoting and supporting breastfeeding;

Recognizing that there is a sound scientific basis for policy decisions to reinforce activities of Member States and those of WHO; for proposing new and innovative approaches to monitoring growth and improving nutrition; for promoting improved breastfeeding and complementary feeding practices, and sound culture-specific counselling; for improving the nutritional status of women of reproductive age, especially during and after pregnancy; for alleviating all forms of malnutrition; and for providing guidance on feeding practices for infants of mothers who are HIV-positive;

Noting the need for effective systems for assessing the magnitude and geographical distribution of all forms of malnutrition, together with their consequences and contributing factors, and of foodborne diseases; and for monitoring food security;

Welcoming the efforts made by WHO, in close collaboration with UNICEF and other international partners, to develop a comprehensive global strategy for infant and young child feeding, and to use the ACC Sub-Committee on Nutrition as an interagency forum for coordination and exchange of information in this connection;

1. THANKS the Director-General for the progress report on the developoment of a new global strategy for infant and young child feeding;
2. URGES Member States:

(1) to recognize the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger, and that every effort should be made with a view to achieving progressively the full realization of this right and to call on all sectors of society to cooperate in efforts to improve the nutrition of infants and young children;
(2) to take necessary measures as States Parties effectively to implement the Convention on the Rights of the Child, in order to ensure every child's right to the highest attainable standard of health and health care;
(3) to set up or strengthen interinstitutional and intersectoral discussion forums with all stakeholders in order to reach national consensus on strategies and policies including reinforcing, in collaboration with ILO, policies that support breastfeeding by working women, in order substantially to improve infant and young child feeding and to develop participatory mechanisms for establishing and implementing specific nutrition programmes and projects aimed at new initiatives and innovative approaches;
(4) to strengthen activities and develop new approaches to protect, promote and support exclusive breastfeeding [during the first 4 to 6 months of life] [for about 6 months], (Note 2) and to provide safe and appropriate complementary foods, with continued breastfeeding for up to two years of age or beyond, emphasizing channels of social dissemination of these concepts in order to lead communities to adhere to these practices;
(5) to support the Baby-friendly Hospital Initiative and to create mechanisms, including regulations, legislation or other measures, designed, directly and indirectly, to support periodic reassessment of hospitals, and to ensure maintenance of standards and the Initiative's long-term sustainability and credibility;
(6) to improve complementary foods and feeding practices by ensuring sound and culture-specific nutrition counselling to mothers of young children, recommending the widest possible use of indigenous nutrient-rich foodstuffs; and to give priority to the development and dissemination of guidelines on nutrition of children under two years of age, to the training of health workers and community leaders on this subject,

and to the integration of these messages into health and nutrition information, education and communication strategies;

(7) to strengthen monitoring of growth and improvement of nutrition, focusing on community based strategies, and to strive to ensure that all malnourished children, whether in a community or hospital setting, are correctly diagnosed and treated;

(8) to develop, implement or strengthen sustainable measures, including where appropriate, legislative measures, aimed at reducing all forms of malnutrition in young children and women of reproductive age, especially iron, vitamin A and iodine deficiencies, through a combination of strategies that include supplementation, food fortification and diet diversification, through recommended feeding practices that are culture-specific and based on local foods as well as through other community-based approaches;

(9) to strengthen national mechanisms to ensure global compliance with the International Code of Marketing of Breastmilk Substitutes and subsequent relevant Health Assembly resolutions, with regard to labelling as well as all forms of advertising, and commercial promotion in all types of media, to encourage the Codex Alimentarius Commission to take the International Code and relevant subsequent Health Assembly resolutions into consideration in developing its standards and guidelines; and to inform the general public on progress in implementing the Code and subsequent relevant Health Assembly resolutions;

(10) to recognize and assesss the available scientific evidence on the balance of risk of HIV transmission through breastfeeding compared with the risk of not breastfeeding, and the need for independent research in this connection; to strive to ensure adequate nutrition of infants of HIV-positive mothers; to increase accessibility to voluntary and confidential counselling and testing so as to facilitate the provision of information and informed decision-making; and to recognize that when replacement feeding is acceptable, feasible, affordable, sustainable and safe, avoidance of all breastfeeding by HIV-positive women is recommended; that, otherwise, exclusive breastfeeding is recommended during the first months of life; and that those who choose other options should be encouraged to use them free from commercial influences;

(11) to take all necessary measures to protect all women from the risk of HIV infection, especially during pregnancy and lactation;

(12) to strengthen their information systems, together with their epidemiological surveillance systems, in order to assess the magnitude and geographical distribution of malnutrition, in all its forms, and foodborne disease;

3. REQUESTS the Director-General

(1) to give greater emphasis to infant and young child nutrition, in view of WHO's leadership in public health, consistent with and guided by the Convention on the Rights of the Child and other relevant human rights instruments, in partnership with ILO, FAO, UNICEF, UNFPA and other competent organizations both within and outside the United Nations system;

(2) to foster, with all relevant sectors of society, a constructive and transparent dialogue in order to monitor progress towards implementation of the International Code of Marketing of Breastmilk Substitutes and subsequent relevant Health Assembly resolutions, in an independent manner and free from commercial influence, and to provide support to Member States in their efforts to monitor implementation of the Code;

(3) to provide support to Member States in the identification, implementation and evaluation of innovative approaches to improving infant and young child feeding, emphasizing exclusive breastfeeding [during the first 4 to 6 months of life][for about 6 months] (Note 2), and the provision of safe and appropriate complementary foods, with continued breastfeeding up to two years of age or beyond, and the emphasis on community-based and cross-sector avtivities;

(4) to continue the step-by-step country- and region-based approach to developing the new global strategy on infant and young child feeding, and to involve the international health and development community, in particular UNICEF, and other stakeholders as appropriate;
(5) to encourage and support further independent research on HIV transmission through breastfeeding and other measures to improve the nutritional status of mothers and children already affected by HIV/AIDS;
(6) to submit the global strategy for consideration to the Executive Board at its 109th session in January 2002 and to the Fifty-fifth World Health Assembly (May 2002).

Note 1: Document EB 107/3

Note 2: The final text in square brackets will be decided in the light of the outcome of the systematic review of the scientific literature, a global peer review, and the conclusions and recommendations of an expert consultation (Geneva, 28-30 March).

THE CHANGING EPIDEMIOLOGY OF MALNUTRITION IN A DEVELOPING SOCIETY

The Effect of Unforeseen Factors

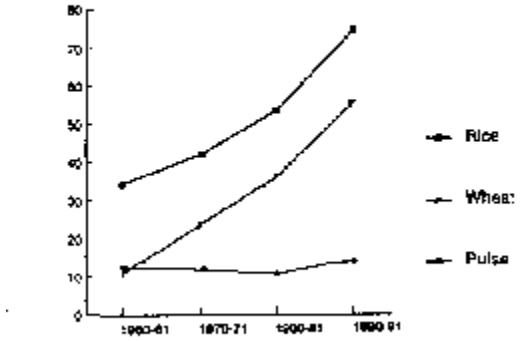
C. Gopalan

While much of the improvement in the nutritional status of the population in developing societies may be attributable to the progressive eradication of poverty and removal of socio-economic disabilities, not all changes can be explained on this basis. The changing epidemiology of nutrition-related diseases is sometimes due to fortuitos or unforeseen factors incidental to the developmental process. In this presentation, four classical nutrition-related diseases - namely, pellagra, lathyrism, flourosis and goitre - the epidemiology of which has dramatically changed, have been discussed. The change in respect of both of these diseases has been brought about not necessarily because of steps deliberately designed to remove socio-economic inequalities leading to better nutrition, but due to the intervention of unforeseen factors unleashed by the developmental process.

BENEFICIAL EFFECTS

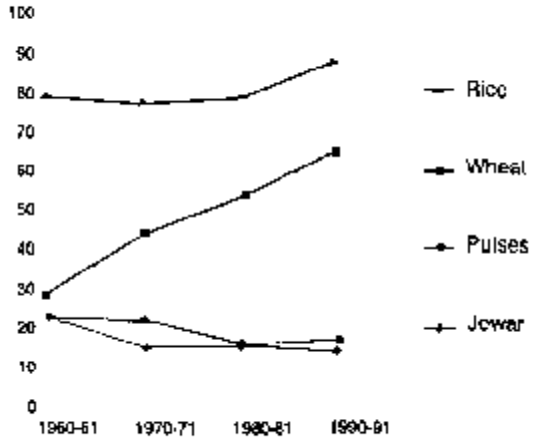
Experience with the first two of these diseases, that is, pellagra and lathyrism, would exemplify the fact that the epidemiology of nutrition related diseases can be substantially influenced by changes in pattern of food grain availability following the introduction of new food-production policies. The market forces thus generated could bring about major changes in dietary practices that could dramatically alter the course of nutrition-related diseases. Though the Green Revolution - wherein the emphasis was all on the augmentation of production of wheat and rice - had resulted in substantial increase in the per capita availability of these major cereals, production of pulses and legumes - which contribute to the nutrient quality of cereal-based diets - lagged behind, resulting in a substantial reduction in the per capita availability of these latter food grains. The per capita availability of 'coarse grains' (millets) had also suffered relative neglect **(Fig. 1, 2).** The resulting distortion in the pattern of food grain production was in turn reflected in the relative market prices of these food grains. The market prices of pulses and legumes, which were at one tome less expensive than rice and wheat, have now shot up to levels which make it virtually impossible for the poor to achieve adequate access to these foods. The price differential between coarse grains (millets) on the one hand and rice/wheat on the other has also altered to the disadvantage of the former. The near disappearance of pellagra and lathyrism can be attributed to these effects of the Green Revolution.

FIGURE 1
Production of Rice, Wheat and Pulses
from 1960-90 (million tonnes)



Source: Agricultural Statistics at a Glance. Directorate of Economics and Statistics, Ministry of Agriculture, GOI, 1998

FIGURE 2
Per Capita Availability of Rice, Wheat, Pulses and Jowar
from 1960-90 (kg/person/year)



Source: Agricultural Statistics at a Glance. Directorate of Economics and Statistics, Ministry of Agriculture, GOI, 1998.

Disappearance of Pellagra

The classical nutritional deficiency disease, pellagra, with a worldwide distribution, has been known since the beginning of this century.

Goldberger's classical work[1] served to demonstrate the association between consumption of maize and pellagra. The low content, in maize, of the essential amino acid tryptophan, the precursor of nicotinic acid, has been held responsible. While the disease has been practically unknown in the rice belt of Asia, in the rural area of the rocky Deccan plateau of India, it was found to be common among the adult population, accounting for 1 per cent of all hospital admissions in general hospitals of Hyderabad and 8-10 per cent of all admission to mental hospitals in the city in 1960s[2]. But this endemic pellagra, seen in the Deccan plateau of India, occurred in populations subsisting not on maize, but on the millet sorghum (jowar); which is not poor in tryptophan. This observation ran clearly counter to the well accepted view that pellagra was invariably a disease of maize eaters.

A feature common to both maize and sorghum is the high content of the amino acid leucine. Studies carried out at the National Institute of Nutrition, Hyderabad', showed that excess leucine in poor sorghum diets could bring about significant changes in key enzymes in the tryptophanniacin pathway resulting in the inhibition of nicotinamide-nucleotide formation from dietary tryptophan leading to conditioned deficiency of nicotinic acid[3,4,5,6.]

Thus, the Indian studies had shown that pellagra was not exclusively confined to maize eaters but could also occur in sorghum eaters among whom excess of leucine and deficiencies of pyridoxine and nicotinic acid may play a part.

These findings regarding the pathogenesis of pellagra among the sorghum eaters of the Deccan plateau of India apart, for the purpose of the present discussion, the important observation is that pellagra, which was once rampant in this part of India, is now extinct from these very areas. This extinction has been brought about not by any specific vertical intervention programme consisting of supplementation of nicotiic acid/pyridoxine, but by unforeseen factors incidental to the development process.

The major factor responsible for this near extinction has been the striking decline in the consumption of jowar in the region even by the poor. Rice and wheat have now displaced jowar as the staple and there has been a marked change in dietary practices. This change has been brought about by the fact that the production of jowar just as the production of all so called coarse cereals in the country as a whole, has remained either static or has decreased, while the production of rice and wheat has shown a substantial increase. The per capita availability of jowar, unlike that of rice and wheat, has declined and the striking differences in the price of jowar and rice which prevailed in 1960s has now practically disappeared. Rice and wheat enjoy greater social prestige than jowar (the erstwhile staple of the poor) and are, therefore, preferred even by the poor. Moreover, in recent years, rice is being offered at highly subsidised prices to low income groups, especially in Andhra Pradesh where pellagra was once prevalent. Thus, the extinction of the disease has not been brought about through deliberate efforts to change dietary habits or through specific programmes but through unforeseen factors generated by development, notably, the Green Revolution and consequent changes in the pattern of food production and availability.

DISAPPEARANCE OF NEUROLATHYRISM

Neurolathyrism characterised by spastic paraplegia, affecting the lower extremities, has been endemic in parts of Central India in areas where diets are predominantly based on the pulse Lathyrus sativus. The first clinical description of an epidemic of lathyrism in India was given by General Sleaman in 1844[7]. The disease had taken a heavy toll among poor agricultural labourers of Central India for nearly two centuries. The toxic factor in the pulse responsible for the disease was identified as BOAA (B-oxalyl aminoalanine)[8,9.]. A simple household method by which the toxins can be removed from the seed by soaking them in hot water for about 15 minutes or by parboiling the seed in a process similar to the parboiling of rice, was also developed. Agricultural scientists in India and Canada had made attempts to identify and selectively propagate genetic strains of Lathyrus sativus low in BOAA.

It was the practice of the rich farmers of the region to pay wages to their bonded labourers in the form of Lathyrus sativus. As early as in the year 1907, the enlightened ruler of Rewa had issued a proclamation banning this practice, but this well-intentioned edict was successfully thwarted by vested interests.

Subsequently, attempts to ban the cultivation of Lathyrus sativus could also not succeed, because Lathyrus is a hardy crop which could be grown easily even on unirrigated land. While the seeds of the plant had become the established staple diet of the poor, the shoots provided fodder for the cattle. Thus, Lathyrus sativus had become strongly entrenched in the agricultural economy of the region, and alternative para-crops which could displace Lathyrus in the region could not be identified and propagated.

On the basis of several studies conducted by us, a four-pronged strategy for the prevention and control of neurolathyrism was suggested:

- Educating the poor community to avoid using Lathyrus sativus as the sole staple diet and to use it only in small quantities, if at all, in admixture with cereals and millets.
- Persuading the community to parboil the seeds before cooking them,
- Dissuading landlords from paying their labourers' wages in the form of Lathyrus.
- Encouraging agricultural scientists to identify and selectively propagate low BOAA strains of Lathyrus.

Though attempts were made to implement this strategy, the programme could not make much headway in the face of resistance by affluent vested interests on the one hand, and apathy and lack of cooperation on the part of the poor, on the other. The efforts of agricultural scientists to develop low toxin strains did not yield expected results.

Despite this, the gradual decline and the eventual virtual disappearance of the disease by the late 1980s was indeed a surprising and paradoxical development. The striking finding was that the contract agricultural labourers, unlike in the past, were no longer getting Lathyrus sativus in lieu of their wages. Instead, they were getting either money or wheat and other millets. Available figures indicate that the cultivation and total production of Lathyrus sativus in the endemic region had not declined despite an official ban which exists on paper. The nagging questions were: Why was Lathyrus sativus no longer being used to provide wages to the agricultural labourers by the traditionally greedy landlords? If Lathyrus sativus was not being consumed locally by the poor and the affluent, what was really happening to the Lathyrus which was, if anything, being increasingly cultivated? A re-visit of Rewa, the traditional home of the disease, provided the answers.

Lathyrus sativus was the cheapest and the most inexpensive food item in earlier years and was then much less expensive than wheat or rice. But by the 1980s, Lathyrus had become a relatively costly commodity. Its wholesale price, which was just Rs. 47 per quintal in 1964-65, had shot up to Rs. 270 per quintal - as against Rs. 170 per quintal for wheat - even by 1980. Today the price differential between Lathyrus and wheat is even higher. The price of Lathyrus sativus per quintal is even higher than that of wheat. Thus, Lathyrus sativus, far from being a weed growing on the wayside to be freely dispensed to the poor, has now become a precious commodity well beyond the reach of the poor and far more expensive than wheat or rice. It was no longer a profitable proposition for the landlords to pay wages to their labourers in the form of Lathyrus - they were forced to switch over to wheat.

When the wholesale prices of cereals and of pulses are compared for the period 1955-81 **(Table)**, it will be seen that till about 1960, the wholesale price of wheat was higher than that of pulses. However, in the wake of the Green Revolution and with the intensification of cereal cultivation relative to pulses, the per capita availability of pulses declined markedly. Naturally, the prices of pulses soared and since the mid-1960s they have continued to exceed the price of wheat. Adulteration of pulses such as longer Bengal gram with a hardy pulse crop such as lathyrus sativus, which grows even on unirrigated land has, therefore, become an attractive proposition. Thus, the Green Revolution has had the unforeseen effect of changing the entire course of lathyrism.

Table

Wholesale Prices of Wheat and Pulses in India (Rs/quintal)

Year	Wheat	Bengal Gram	Red Gram	Black Gram	Green Gram
1960	41.2	35.7	50.3	48.8	53.1
1981	162.5	351.5	442.5	291.6	384.2

Source: The Lathyrism Problem, Current Status and New Dimensions, NFI Scientific Report 2, 1983.

Evidently, the poor landless labourers wee being 'saved' from the poisonous seed not because of the researches and educational programme of the last two decades, but solely due to the intervention of market

forces. The very greed and profit motive of the landed gentry, which for centuries was responsible for the perpetuation of neurolathyrism among th poor in Rewa, has apparently helped to redeem the poor by putting Lathyrus sativus out of their economic reach.

DELETERIOUS EFFECTS

The two other classical nutrition-related diseases, that is iodine deficiency and fluorosis, give good examples of how well-intentioned developmental programmes could aggravate and deleteriously alter the course of a disease.

CHANGING COURSE OF IODINE DEFICIENCY DISORDERS

Iodine deficiency disorders in India had been traditionally considered to be a disease state predominantly confined to the sub-Himalayan hilly regions of the country. Huge pendulous goitres and frank cretinism have been reported from the vast sub-Himalayan belt of the country. Goitre has also been reported from the hilly areas of South East Asian countries such as Thailand, Myanmar and Indonesia. With the Institution of the programme of iodisation of common salt, the disease had shown signs of substantial regression in these countries since the 1970s.

Since the 1980s, however, a change in the epidemiology of the disease in the epidemiology of the disease has become noticeable not only in India but in other South Asian countries as well[10]. The iodine deficiency problem in India seems to have now invaded the irrigated plains and is no longer confined to the hilly regions of the sub-Himalayan tract alone. The goitre that is now widely seen in the irrigated plains is certainly not of the huge pendulous variety but often manifests as a low-grade enlargement of the thyroid gland. Using radioimmunoassay techniques, Kochupillai[11] provides evidence of widespread neonatal hypothyroidism in several thousands of new borns in the plains of India.

The important question for our present purpose is: what are tge factors that have led to the changing epidemiology of goitre and its emergence in new areas higherto not known to be goitre endemic.

The possibilities that need to be considered in the context of the emerging evidence are:

- Intensive irrigation involved as part of the agricultural technology following the Green Revolution has resulted in soil alkalinity and depletion of soil micronutrients. Efforts at correcting this through periodic soil testing and soil repletion have been tardy. Depletion of soil iodine is part of this problem and is reflected in the diminished content of iodine in foods and water. Thus, data from National Institute of Nutrition (NIN), Hyderabad have shown that the average iodine content of water from goitrous areas is 3-16 ug/I as against 5-64 ug/I in non-goitrous areas. Iodine content in foods could be as low as 173-265 ug/day. The extensive loss of iodine from the soil is also attributable to intensive multiple cropping. The intensive cultivation of such crops as sugarcane and the resulting loss of iodine from the soil caused by the considerable biomass generated are factors contributing to this loss.
- Fertilisers, pesticides and food additives now widely used could be expected to inhibit iodine utilisation.
- Increased urinary thiocynate levels in endemic areas, in the face of seemingly adequate levels of urinary iodine excretion have raised the possibility of excessive ingestion of goitrogens which may be expected to interfere with the utilisation of iodine by the thyroid gland. Such goitrogens could either be of dietary origin or could be in the nature of food contaminants in the environment. Goitrogens have been reported from a wide range of plant foods. The question that has to be decided is whether the concentrations of goitrogens in plant foods, which have been known for a long time, have increased in recent years following the institution of modern intensive agricultural technology? Has the heavy use of fertilisers and the new farming procedures now in plant foods? Increased urinary thiocynate levels in some endemic areas point to this possibility.

CHANGING COURSE OF FLOUROSIS

Fluorosis was first described in India by Shortt, *et al*[12] more than 60 years ago. The disease had been recognised as an endemic problem in parts of the Punjab, Andhra Pradesh, Karnataka, Rajasthan and Uttar

Pradesh. The primary cause of endemic flourosis had been established to be excessive intake of the element fluoride. Since food items do not contribute much fluoride, it is the amount of fluoride ingested through drinking water that determines the risk of flourosis. However, it is known that other factors in the food influence the susceptibility to flourosis. Thus, flourosis is more common among millet (*jowar)* eaters than among rice eaters, and the presence of vitamin C and calcium in the diet also appear to be an important determinant[13].

In children, fluoride toxicity primarily affects the teeth (dental flourosis). In adults, the bony skeleton, ligaments and tendons are affected. The central pathological process is excessive formation of bone and inappropriate calcification of soft tissues. The subjects afflicted with the disease often suffer from spinal deformities and poker backs and are quite often disabled.

While these clinical manifestations were well recognised, a new and serious dimension to the problems of skeletal flourosis suddenly emerged in the mid-1970s. NIN, Hyderabad, then discovered that in parts of Andhra Pradesh, which were long known to be endemic for flourosis, a large number of adolescents and young adults had developed marked degrees of *genu valgum* or 'knock knees' of a form so severe that it incapacitated them. This was an entirely new development seen for the first time in areas where formerly only the classical form of skeletal flourosis was seen in older men[14,15]. In 28 villages belonging to the endemic areas that were surveyed by the NIN team, as many as 600 (2.8 per cent) out of 21,000 subjects surveyed, had this striking deformity. There was also a wide variation between villages with prevalence ranging from as low as 0.2 per cent to 17 per cent. In some villages, almost all the youth were affected.

A series of interesting studies revealed that this new aggravation of an old disease was related to the construction of the large Nagarjunasagar Dam which impounds large amounts of water. The dam had been hailed as a major developmental project which had extended irrigation facilities to a vast, dry and arid area. As part of the developmental effort and in order to mobilise and harness water resources for the increasing population, large dams are being constructed in several developing countries. There is now evidence that in some cases, these well-intentioned efforts could have deleterious consequences. The impounding of water by huge dams could bring about changes in subsoil water levels and in soil chemistry. The sequence of events leading to the new manifestations are stated briefly: Following the construction of the dam and the impounding of large quantities of water, there was an elevation of levels of subsoil water in the dam vicinity and the rise of soil alkalinity which influences the concentration of trace elements in food grains grown in that area. The concentration of molybdenum in food increases and, in view of the well-known antagonistic relationship between molybdenum and copper, leads to copper deficiency and facilitates bone deformities.

Most importantly, fluoride content in subsoil water and in foods grown in subsoil water and in foods grown in the area had also increased. Thus, *genu valgum* afflicting young adults emerged as a new phenomenon, consequent to the construction of the Nagarjunasagar Dam.

Here, then, is an instance of an unforeseen ecological repercussion of a well-intentioned development programme which was envisaged as an unmixed blessing that would help irrigate vast tracts of land and help grow more food.

This experience in Nagarjunasagar has again been repeated in another part of the country, though not because of the construction of a dam but because of another development programme.

The growing population pressure the resultant scarcity of drinking water in the country has now led to the policy of providing tube-wells, so that a water source is available within a distance of 200 m of any household (100 m in hilly areas). Millions of tube-wells were also preferred because of the widespread contamination of surface water with water-borne micro-organisms responsible for cholera and hepatitis. Tube-wells have no doubt contributed to the elimination of water-borne diseases in quite a few areas. However, in some areas where the aquifer is surrounded by fluoride-contaminating earth - cryolite, calcite, fluorospar and mica - the water from the tube-well is contaminated with excess fluoride. Thus, all tube-wells are not safe from the point of view of fluorosis in situations where tube-well water is rich in fluoride, it has

become necessary to resort to surface-water sources, after proper treatment of such sources. In areas where excess fluoride has not been detected, an aggravation of fluorosis has been observed.

An epidemiological survey carried out in village Tilaipani, in district Mandla of Madhya Pradesh, has revealed a high prevalence of *genu valgum* (51.1 per cent) and dental fluorosis (74.4 per cent) among children below 20 years, while 16.3 per cent of the children below 10 years were also affected with fluorosis[16]. This is again a relatively new development. While in the Nagarjunasagar area of Andhra Pradesh, the construction of a large dam started the chain of events leading to the aggravation of fluorosis, at Mandla in Madhya Pradesh, fluorosis had become aggravated due to the digging of deep bore-wells (more than 42 m deep), and large-scale consumption of water from such deep bore-wells as against surface wells which were in vogue earlier. The first cases of lower limb deformities were observed two years after the first tube-wells were dug. Thereafter, within a span of three years, the number of cases increased in quick succession to reach the present magnitude of 51.1 per cent for *genu valgum*, and 74.4 per cent for dental fluorosis among children below the age of 20 years.

Incidentally, deep tube-wells have also been found to be responsible for the outbreak of arsenicosis in the Malda district of West Bengal[17].

Diseases, apparently, have natural histories of their own. Like empires and civilisations, they rise, reign for some time, and then fall or change their course. Scientists can often take credit for the decline of several diseases such as, say, smallpox. In some cases, however, the disappearance or changing course of diseases, once rampant, cannot be attributed to scientific intervention deliberately designed to contain them.

Pellagra and lathyrism, as was pointed out above, had disappeared not because of solutions offered by scientists, but because of unforeseen factors unleashed by the developmental process. Diseases such as goitre and fluorosis have changed their epidemiology again because of unforeseen factors unleashed by developmental programmes.

As we move into the next millennium, new discoveries and initiatives are bound to find application as part of ongoing 'development'. Some of these may have unforeseen effects, sometimes beneficial and sometimes even not. Scientists are not always the masters of human destiny and of the environment. This must be a sobering thought. They must be vigilant to monitor the effects of new interventions in a fast changing world on the health status of populations and on the course of diseases that affect them.

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LESS RECOGNISED MICRONUTRIENT DEFICIENCIES IN INDIA

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Optimum health demands an adequate intake of all macro and micronutrients. Since utilisation of one nutrient is often dependent on the adequate supply of some other nutrient, deficiency of any one of them affects not only the biochemical functions dependent on that nutrient, but also the entire metabolic machinery. For instance, iron absorption is facilitated by vitamin C and vitamin B2. Conversion of pyridoxine (vitamin B6) to its active form, pyridoxal phosphate requires riboflavin (vitamin B2). Conversion of vitamin A (retinol) to vitamin A aldehyde (retinal), the form in which it participates in vision, requires vitamin B (niacin). To keep folic acid in its active reduced form, tetrahydrofolate vitamins B12 and B2 are required. Riboflavin is also required for the metabolism of niacin and vitamin K. These are just a few examples.

MICRONUTRIENTS IN INDIAN DIETS

Countrywide surveys conducted by the National Nutrition Monitoring Bureau (NNMB) show that Indian diets are qualitatively adequate in proteins but deficient in some micronutrients. Thus, if caloric needs are met, protein requirements too are fulfilled, but the requirement of several miconutrients **(Table 1)** remain unmet. While dietary deficiencies of vitamin A and riboflavin are seen in all age, sex and physiological groups, those of other micronutrients, such as iron, calcium, thiamine (vitamin B1), niacin and vitamin C are seen in children and pregnant and lactating women (Table 1)[1]. NNMB data do not provide information on the intake of folic acid and pyridoxine. However, studies conducted at the National Institute of Nutrition many years ago, suggest that intake of these nutrients is also low, particularly in women and children **(Table 2)**[2,3]. Since Indian diets have not changed substantially over the years, these observations apply even today.

Although the problem of vitamin B12 deficiency has not been adequately examined, it may well be prevalent since Indian diets are predominantly vegetarian.

Table 1

Average Nutrient Intake of Children and Adults
(As per cent of RDI)

	Pro-tein	En-ergy	Cal-cium	Iron	Vita-minA	Thia-mine	Ribo-flavine	Niacin	Vita-min C
Children									
1-3yrs.	94.5	62.8	61.2	71.7	35.2	66.7	51.4	60.00	48.3
7-9yr	90.7	71.8	92.7	67.7	34.8	82.0	46.7	70.00	44.8
Adolescents (13-15 yrs)									
Boys	72.0	81.3	71.8	58.3	48.0	87.5	47.3	78.1	94.5
Girls	74.9	91.8	65.8	78.6	37.8	101.0	58.3	87.1	75.2
Adults									
Males	108.0	87.5	144.2	109.6	48.5	100.0	73.7	90.5	101.0
Females:									
NPNL	108.0	90.6	113.7	87.3	40.5	103.6	56.9	93.6	81.2
Pregnant	65.0	75.6	48.3	35.5	63.0	89.1	53.0	80.0	91.0
Lactating	75.2	89.1	51.5	87.0	32.9	103.0	59.3	90.0	47.5

RDI - Recommended Dietary Intake
NPNL - Non-Pregnant and Non-Lactating

Table 2
Folate and Vitamin B6 Intake of Children and Women
(As per cent of RDI)

	Folate[1]	Vitamin B6[2]
Children		
1-3 years	-	46
1-12 years	55	-
Pregnant women	38	45.5
Lactating women	33	43.3

Source: *1. Babu, S. (1976)*
2. Bapurao and Tulpule (1980)

In addition to the micronutrients mentioned above, there are many trace elements such as zinc and selenium, whose deficiency may also exist. Unfortunately, very little information is available on the trace elements, whose importance is beginning to be realised. Thus, if the problem of micronutrient deficiency in India is to be addressed, a broader view, encompassing multiple micronutrients, must be taken. Selectively augmenting the intake of one or two will not suffice.

THE NEGLECTED PROBLEM

Clinical deficiency is the tip of the proverbial iceberg. For every case of clinical deficiency, there are many others who suffer from sub-clinical malnutrition. Sub-clinical vitamin deficiencies can be identified through appropriate biochemical measurements. Numerous studies done at the National Institute of Nutrition (NIN) show a very high incidence of riboflavin deficiency in children [4,5] and adults (as yet unpublished) as judged by the erythrocyte glutathione reductase activation test **(Table 3)**. Several studies conducted at NIN show that more than 60 per cent of young women suffer from folate deficiency, judged by red blood cell folate levels and

that over 25 per cent of women suffer from vitamin B6 deficiency as judged by erythrocyte aspartate aminotransferase activation coefficient. Deficiencies of these nutrients are greater in magnitude during pregnancy. Subjects with sub-clinical vitamin deficiencies may appear normal but suffer from subtle functional deficits, such as impaired psychomotor function and reproduction, increased susceptibility to infections, reduced capability to handle offending xenobiotics, increased susceptibility to oxidant stress and degenerative diseases, reduced synthesis of important macro-molecules, such as DNA, collagen and others. Public health workers and even scientists tend to ignore such malfunctions because they are not obvious killers or cripplers. Yet, in terms of the overall performance of the community, they may also contribute substantially to the loss of 'disability - associated life years' (DALY loss).

TABLE 3
Prevalence of Biochemical Riboflavin Deficiency, as Judged by EGR-AC[1] among Low-Income Group
Women and Children
(Percentage Distribution)

	Number	Adequate	Low risk	Medium risk	High risk	Source
Rural children 1-5 yrs	105	21	33	21	25	Unpublished
Rural school boys 5-11 yrs	114	0	5.2	15.5	79.3	Bamji *et al*[4] 1982
Urban School children 7-11 yrs	103	2	4	9	85	Prasad *et al*[5] *1987*
Rural women 15-45 yrs	105	8	21	21	50	Unpublished
Urban women 18-35 years	415	8	10	14	68	Bamji, Prema and Jacob (WHO) Task Force Unpublished

1- *Erythrocyte glutathione reductase activation coefficient.*

Deficiencies of B-complex, vitamins have drawn lesser attention from public health nutritionists as compared to nutrients such as iron, vitamin A and iodine, as the former may not lead to such obviously crippling morbidities as the latter would. Yet, they are metabolically important. Riboflavin - one of the most deficient nutrients in Indian diet - along with thiamine and niacin, is a key player in the conversion of dietary energy into the energy currency of the body - ATP, by facilitating oxidation-reduction reactions. It is also required for drug metabolism and for the generation of reduced glutathione - a powerful anti-oxidant. Pyridoxine is needed for protein metabolism and for the generation of important neurotransmitters such as serotonin, dopamine and others. Folic acid, along with vitamin B12 is involved in single carbon transfer reactions and, hence, is crucial for the synthesis of the genetic material, DNA, and for cell maturation, including red blood cell formation.

Ignoring these deficiencies would imply that either nutritionists do not consider them metabolically important, or feel that present estimates of their requirements are wrong. Either assumption will be unacceptable. Some examples of the functional consequences of vitamin B deficiencies are discussed to emphasis the consequences of their deficiencies which may go beyond the obvious.

RIBOFLAVIN DEFICIENCY

The characteristic features of advanced riboflavin deficiency are orolingual (angular stomatitis, glossitis, and cheilosis), dermal (seborrhoeic dermatitis), corneal (vascularisation) and haematological manifestations;

in the earlier stages, fatigue, itching and burning of the eyes, and some personality changes may also occur. The incidence of the orolingual and dermal lesions in India is high - about 5 to 10 per cent - particularly in pregnant women and in school-going children. These lesions, however, are not specific to riboflavin deficiency. Their treatment, sometimes, requires other B-complex vitamins, particularly pyridoxine, suggesting the presence of multiple deficiencies. Angular stomatitis may also occur due to fungal infection.

Respiratory infections in children lead to excessive elimination of riboflavin in urine, and this, in addition to the low dietary intake may contribute significantly to the problems. Studies in mice show that Klebsiella pneumoniac infection alters riboflavin metabolism and mobilises riboflavin from the liver, and perhaps other tissues, into the blood[7] . This may be due to the requirement of this vitamin for mounting the acute phase of defence reactions associated with phagocytosis. Separate studies in rats suggest that phagocytic activity of the white blood cells is affected in riboflavin deficiency.

Psychomotor performance tests, such as hand-steadiness, have been found to be significantly impaired in riboflavin-deficient rural and urban school children[4,8]. In experimentally-induced riboflavin deficiency American adult men lost some of the hand grip strength[9]. Impairment of such neuromotor functions may be due to the role of riboflavin in energy transduction reactions in the mitochondria. Individuals suffering from riboflavin deficiency may perform suboptimally, and to judge the impact of riboflavin deficiency, simply on the basis of the well-established clinical signs and symptoms which are not life threatening or crippling, may not be justified. The incidence of riboflavin deficiency has been found to be higher in men suffering from cataract compared to matched controls[10]. Experimental studies in humans show that physical work increases riboflavin requirement beyond the present recommendations of 0.6 mg per 1,000 kilo calories.

Riboflavin is crucial for embryogenesis. Limb-reduction in infants, whose mothers had used thalidomide during pregnancy, was attributed to its anti-riboflavin action. Riboflavin is transported to the foetus or to the avian egg by the oestrogen-induced protein or the riboflavin-cancer protein (RCP). Genetic absence of this protein in the avian egg results in its failure to hatch. Neutralisation of this protein through active or passive immunisation has an abortifacient effect in rats and monkeys[11], suggesting the importance of this vitamin during pregnancy.

MOLECULAR BASIS OF SKIN LESIONS

Deficiencies of both these vitamins give rise to similar oral and skin lesions. The work done by the authors suggests that these lesions may be due to impaired maturity (reduced cross-linking) of the connective tissue protein, collagen[12]. This biochemical lesion would weaken the dermis and make the overlying epithelial tissue susceptible to mechanical stress and infection. The information of epithelium of the skin also requires a mature cross-linked collagen.

Collagen synthesis is vital to the process of wound healing. In riboflavin, as well as pyridoxine-deficient rats, wound healing has been found to be impaired. The implications of this functional defect in humans needs to be examined.

Further studies on the biochemical basis of reduced collagen cross-linking in the deficiencies of these vitamins show that the levels of the amino acid, homocysteine is elevated in the skin of rats suffering from either of these deficiencies. Homocysteine is known to impair collagen cross-linking and this may well explain the collagen defect in these deficiency.

IMPLICATIONS OF HYPER-HOMOCYSTEINAEMIA

Homocysteine is generated in the body through de-methylation of methionine. Its metabolic disposal is shown in the figure above. Genetic, physiological, pathological, dietary factors (deficiency of folic acid, B^{12} and pyridoxine) and certain drugs are known to elevate homocysteine levels in blood[13]. Though a similar observation in vitamin B_2 deficiency in humans has not been made, as mentioned earlier, significant increase in homocysteine was observed in the skin of riboflavin-deficient rats.

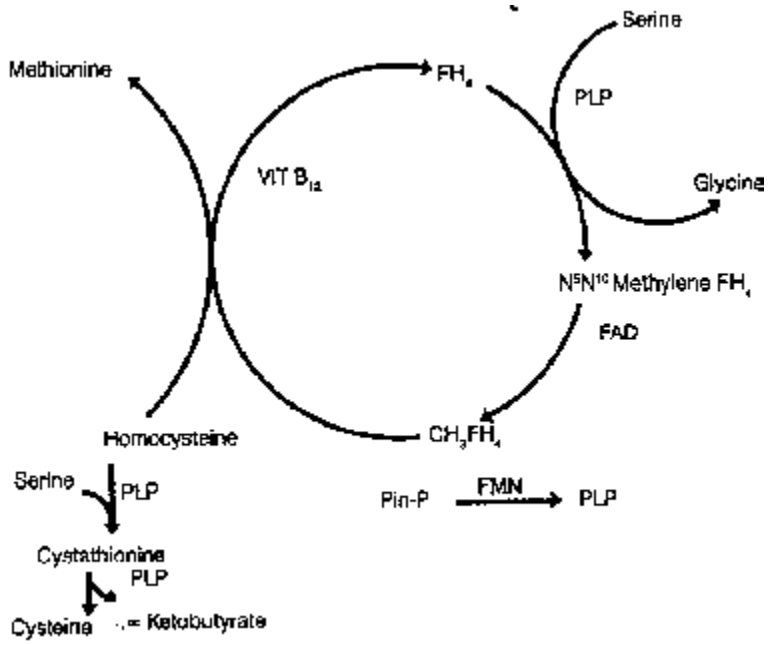
Many subjects with hyper-homo-cysteinaemia (normal range 7-17 umoI/L), and even homocysteineurea (a genetic disorder due to the deficiency of the metabolising enzymes) respond to treatment with pyridoxine,

folic acid and vitamin B^{12}. In recent years, many retrospective, as well as prospective studies have shown moderate hyper-homocysteinaemia to be an independent risk factor for occlusive arterial disease[13]. The mechanism involved is complex and not fully understood for want of a suitable animal model. Hydrogen peroxide generated through the oxidation of homocysteine may damage endothelial cells and impair its function[14]. Excess homocysteine may also alter the activity of coagulation factors.

Information on plasma homocysteine levels in Indians is not available. However, recent unpublished observations of the authors in a few subjects with coronary heart disease and matched controls show higher levels of homocysteine in both the groups (range: 7-74.5µ mols/l). Considering the widely prevalent deficiencies of the vitamins involved in homocysteine metabolism (see figure) and the fact that Indians, in general, have a higher susceptibility to coronary heart diseases and to syndrome X, hyper-homocysteinaemia and coronary heart disease among Indians need to be carefully investigated. A recent study reported regression in carotid plague area in patients with unexplained atherosclerosis with high plasma homocysteine levels after supplementation with folic acid, vitamins B6 and B12[15].

NEURAL TUBE DEFECTS

Folic acid deficiency is also shown to be associated with neural tube defects and pregnancy loss in genetically predisposed individuals. An association between thermolabile methylenetetrahydrofolate reductase, hyper-homocysteinaemia and neural tube defects has also been reported. India has one of the highest neural tube defects - 5 in every 1,000 births[16].To prevent this disorder, the folic acid status has to be built prior to pregnancy, since neural tube fusion occurs within two weeks of conception.



The ICMR recommendation of RDA for folic acid is only 100 µg for men and non-pregnant and non-lactating women. This level is much lower than the international recommendation of 170-200 µg. If higher RDA is used, many more Indians will fall under the deficient category. Also, the requirement of pyridoxine for Indians needs to be reinvestigated, in the light of recent data in plant foods which shows that they contain almost 50 per cent of pyridoxine that occurs in glycosylated form and the availability of this form is poor. While the administration of iron folic acid supplements during pregnancy is absolutely essential, the diet alone may not be able to meet the elevated requirement of these nutrients. An all out effort to augment their consumption in adequate amounts and thus derive a balance of nutrients should be the strategy. To achieve this, a coordinated effort on the part of agricultural scientists, nutritionists and planners is required. In the USA, fortification of foods with folic acid has been made mandatory, UK may do the same. But food

fortification is not an easy strategy in a country such as India. We must ensure the adequacy of these essential nutrients in the daily diet.

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HEALTH AND HUMAN RIGHTS ASPECTS OF THE PROPOSED ANTI-TOBACCO BILL

Arindom Mookerjee*

Introduction

The validity and sanction of any social legislation has to be rooted in the gamut of human rights it seeks to protect or promote. The legislation we are referring to here is the anti-tobacco Bill entitled "*The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Bill, 2001"* and the obvious rights issue is the question of public health. At one level, there may seem to be a contradiction of sorts. After all, human right as I see them essentially are rights of individual; they accrue to a person because they are human and they apply to all people around the world. Notion of public health and social legislation belong to the community as a whole. The dialectics between the two differ on a case-to-case basis. An investigation into these issues perhaps raises more questions than provide answers. Should community rights override individual rights? Shouldn't legislation to promote public health in a democratic welfare state have respect for individual privacy? The paper seeks to address some of these and related issues in the particular case of tobacco. Section 1 deals with the various linkages between health and human rights. Section 2 enlists the salient features of the anti-tobacco Bill. Section 3 reviews the provisions of the Bill in the context of the accepted notions of health and human rights while Section 4 dwells on a broader coalition of law-enforcing agencies, human rights organizations and other members of civil societies to make a meaningful impact in this field.

Section 1 <u>The triad of health, human rights and social legislation</u>

To begin with a simplistic relationship between the three can be presented thus: The right to health is to be recognized as a basic human right. The legislative imperatives of the same needs to be put in place firmly. Good health then can be seen as a consequence of the two.

One approach to the study of the relationship between health and human rights is to focus on the ways in which health policies, programmes and practices can protect and violate rights in ways that they are designed and implemented. The contra-positive approach would be to study the health consequences of disregarding or disrespecting the basic human rights. Whatever the approach, the indivisibility and interdependence of rights as they relate to health cannot be questioned and the promotion and protection of human rights can be as powerful as a vaccine.

Equally important is the condition in which these interplays work. Here one needs to distinguish between the medicinal aspects of private health care and the larger domain of public health. While the former focuses on health of the individual, public health has come to be defined as "... (ensuring) the conditions in which people can be healthy." The distinction lies in the fact that the latter encompasses a much larger and more general objective, viz, the health of populations. Clearly, populations cannot be "healthy" unless the individuals comprising the populations remain so. But individual medical (health) care, while being necessary, is by no means sufficient to achieve the goal of public health. There is no mistaking the fact that smokers derive a private benefit from smoking tobacco and the health costs are borne privately by them. What this does not reveal is that in so doing the health of majority of non-smokers is affected adversely. More on tobacco being a "public bad" in a later section.

The role of law - Where the government comes in

Given the objective of public health, enabling conditions need to be created to help individuals make informed choices, to isolate the changing pattern of vulnerability and develop effective response mechanisms for combating the same. It is important to realize that the human rights paradigm cannot operate in a legal vacuum. Some existing authority needs to enunciate the law and put into place appropriate enforcement and redressal mechanisms. This is where the government (state) comes in. There ought to be no confusion of the role of the state. In the past, guns, drugs, alcohol, which have been highly prized by some, and abused by others, have been the object of societal sanctions. Few have succeeded and the main reason has been that the state has been sucked into the vortex of a prohibition fever where it wanted to play both doctor and patient. It is important for the state as well as for the opponents of the state to define its scope in public action. To be able to respect, protect and fulfill and safeguard its human rights obligations the government has to bring about well-defined legislation to facilitate the functioning of the legal systems.

Today, the philosophy of "responsive communitarianism" is gaining popularity among wide sections of society. This essentially means balancing individual rights with social responsibilities, or individuality with community. In many cases (like in tobacco), there is a basic tension between our individual desire for privacy and our deep concern for public safety and public health. This is where the government comes in - not for example, as the arbiter to decide who should smoke and who not and how much etc. but to outline the priorities and the means of achieving the same.

To sum up, the fundamental reciprocity between health and human rights is well established and the need to put in place a proper regulatory framework to aid and nurture this synergy should be the guiding lights of policy makers and analysis in this field.

Section 2 Salient Features of the anti-tobacco Bill

The Cigarettes (Regulation of Production, Supply and Distribution) Act, 1975 was reviewed by the Parliamentary Committee on Subordinate Legislation in February, 1995 and a large number of suggestions was made. The new Bill entitled *"The Cigarettes and Other Tobacco Pruducts (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Bill, 2001"* has been introduced in the Rajya Sabha on 7th March, 2001 and has since been referred to the Standing Committee on 12th March, 2001. The Bill would be effective as far as the provisions regarding cigarettes are concerned, all over India, but for other tobacco products only to the UTs, Punjab, West Bengal, UP and Goa. This is because other tobacco products (other than cigarettes) are in the state list, and only these states are have passed resolution in their state legislatures undertaking to adopt a central law in the matter. The other states could adopt the law pertaining to other tobacco products merely by passing a resolution in their legislature. Some of the salient features of the Bill are:

- To prohibit the advertisement of all tobacco products and to provide for its regulation in trade and commerce.
- To prohibit smoking in public places
- To prohibit selling of tobacco products to person below the age of 18 years
- Indication of nicotine and tar contents on the packets.
- Indicating of the warning on the package in English as well as Indian languages.
- Total ban on sponsoring of any sport/cultural events by cigarettes and other tobacco product companies.
- Empowering Sub-Inspectors of Police or equivalent officers of State Food or Drug Administration of the Central/State Governments to carryout the provisions of this legislation and confiscation of the goods in case of any violation. However, the owner of the goods will be given the option to pay a fine in lieu of the confiscation, which should be equal to the value of the goods confiscated.
- Imposition of a fine up to Rs. 200/- for minor offences relating to smoking in public places, sale of tobacco products to minors.

These provisions are to be looked in conjunction with certain legislative and administrative steps already taken by the government. They include:

1. The Cigarettes (Regulation of Production, Supply and Distribution) Act, 1975 requires manufacturers or persons trading in cigarettes to display a statutory warning. Similar warning is required to be displayed on advertisements also.
2. Instructions have been issued through the Cabinet Secretariat prohibiting smoking in hospitals, dispensaries, educational institutions, conference rooms, domestic air flights, AC sleeper coaches, suburban trains etc.
3. Direct tobacco related advertisements are prohibited on Doordarshan and All India radio. The cable TV regulation Act has been recently amended prohibiting tobacco advertising on cable TV also.
4. Under PFA rules, a warning "Chewing of Tobacco is injurious to health" has also been made mandatory.

Though information is still to be received from all states, the states of Delhi, Goa and Sikkim have some form of legislation that prohibits smoking in public places and sale to minors. Such steps are under consideration in Rajasthan and West Bengal also. In Kerala, the High Court has directed the Government to stop the practice of smoking in public places by taking steps under the IPC.

Section 3 The Bill through the Health and Human Rights lens

Let us examine what human rights implications the Bill has and what public health aspects the Bill aims to promote. First a small backgrounder. Patterns of smoking in the world suggests that the habit is percolating to those with limited access to information (more so correct information) and education and those who face greater vulnerability to health risks on account of their socio-economic standing. Particular mention must be made of children smokers and the fact that they are special target groups of tobacco companies. So what is it about the nature of tobacco that is considered unacceptable?

Is tobacco a 'public bad'?

Notions of 'privateness' or otherwise of tobacco is explained by the fact that while being "exclusive" in use, it is certainly "non-exclusive" in effect. The tobacco user may be doing so in his private capacity but he cannot exclude others from the harmful exposure of tobacco smoke, others bear the harmful effects despite zero risk-taking. Adult non-smokers face increased risks of fatal and disabling disease due to exposure to other smoke. Babies born to smoking mothers are likely to have lower birth weights, face greater risk of respiratory disease and sudden infant death syndrome. This is over and above the fact that the use of tobacco represents a health hazard to the user herself. In fact the uniqueness of tobacco stems from the fact that it is a substance that is dangerous when used the way it is meant to be used unlike firearms or marijuana where instances of abuse have rendered them harmful.

It is well documented that the use of tobacco carries with it the risks of health hazards and addiction but private and community perceptions vary when it comes to classifying it as a "bad" or what economists call "demerit" good. The consumer must be deriving certain benefits that explain his revealed preference in repeated use (apart from the fact that tobacco is addictive). To that extent his marginal disutility is overridden by the basket of perceived gains that accrues to him. From a societal point of view, the existence of third party risks and environmental pollution, potential fire hazards etc. are defense enough in clubbing it as an example of a public "bad" or something that is undesirable for consumption.

The Indian Factsheet

Based on a few community-based surveys in India, it is estimated that 8 lakh deaths could be attributable to tobacco use. It is estimated that half of the long-term smokers will be eventually killed by the habit and of these half will die during the productive middle age. As per information given by the Indian Council of Medical Research (ICMR), as of 1999, the prevalence of tobacco related cancer was 1,63,500 cases, coronary artery disease due to tobacco use was 44,50,000 and obstructive lung disease cases due to tobacco use were 39,20,000. The total economic cost of treating tobacco related diseases comes to almost Rs. 13,500 crores per annum (at 1990 levels). At today's rates, the expenditure could exceed Rs. 25,000 crores. This includes components like expenditure on diagnosis, treatment, loss of wages and expenditure of the treating institution.

Viewed in this light, obviously there is a public health prerogative and what kind of human rights are being sought to be protected with the introduction of the Bill? Alternatively, in the event of the Bill not coming into effect, what rights are violated and what are its health consequences?

First the right to information, and as stressed earlier, the right to correct information. Consumer sovereignty and rationality of decision-making is aided by informed choice. By displaying nicotine and tar contents and other health warnings, the right to information is attempted to be bridged. Prohibiting sale to minors protects Child health. A non-smoker's right to clean air is addressed by prohibiting smoking in public places, where a "public place" is well defined. It has been defined as:

"Any place to which the public have access, whether as of right or not, and includes auditorium, hospital buildings, health institutions, amusement centres, restaurants, public offices, court buildings, educational institutions, libraries, public conveyances and the like which are visited by the general public but does not include any open space".

An important aspect of any legislation is the enforcement and monitoring of the law. A large part of mainstream opposition and/or skepticism stems from the lack of credibility of enforcing the law effectively. Special attention has been given in the anti-tobacco Bill to plug this lacuna. Authorities have been empowered to fine and confiscate offenders. It should however be borne in mind, that any social legislation needs time to take root. The law prohibiting advertisement in any place or public service vehicle in Delhi was promulgated in 1996. As regards the ban on smoking in public places in Delhi, it is reported by the Government of N.C.T. of Delhi that during the year 2000, 1,404 raids were conducted in public places and public conveyances to check smoking resulting in fines being imposed in 294 cases. In the year 2001, 604 checks have been conducted and 238 people have been fined. This is not to say that the law is being enforced in letter and spirit, but to suggest that there is nothing that we need to be defensive about when questions are raised regarding implementation of existing laws. The fact that the laws exist assures a measure of protection to non-smokers who stand up for their rights. Imagine a situation where they will have nothing to fall back on when they feel physiologically and morally violated due to exposure to tobacco smoke.

To sum up, the Bill is to be looked at from the perspective of public health. Its *raison daitre* is to protect individual freedom, not curb them. It doesn't at any point mention that people need to give up smoking, nowhere is any curb on tobacco production intended to be put in place. Its strategy is clearly a demand-reducing one. The supply chain is left untouched. If public health is accepted to be important, the Bill simply reiterates a basket of human rights that need to be respected and fulfilled.

Section 4 Envisioning a grand coalition

However noble the intentions, one cannot wish away the presence and operation of pressure groups. The obvious reference is to the tobacco lobby that in its acutely erroneous self-justifying means, work towards the perpetration of an ill-informed, hazardous regime. Their economic rationale is sometimes strong enough to push civil rights to the background. Unfortunately in a democracy like ours, public policy priorities get skewed towards areas that are more "lucrative". Given that the resources are limited and there is a plethora of public activities that need to be undertaken, the various demand compete for a place in the rooster. Having taken the bold initiative to put a legislation in place, we cannot allow it to come to naught.

It is here that a broad alliance needs to be formed - to advocate, to educate and to counter-attack when needed. The National Human Rights Commission (NHRC) is a watchdog firmly in place but its role lies more in ex-post enforcement of the legislation. The members of the civil societies, public health activists, academia and sympathetic sections of the industry should form a broad-based coalition to uphold the dignity of basic health rights and resist tendencies in echelons of power to fall victim to subversive attacks from the opponents of individual freedom and liberty. For if they fall, the larger victim will be the health and state of the citizens of this country.

*(Background Paper on Tobacco presented at the **Regional Consultation of Health and Human Rights.)***

TOBACCO FACTS

TOBACCO AND ITS CONTENTS

What is in Tobacco that makes it dangerous?

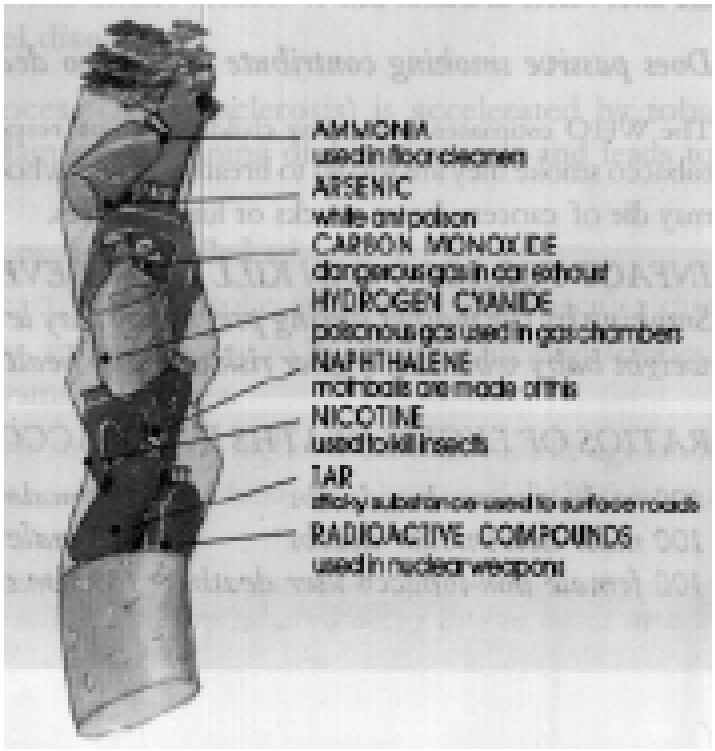
- Tobacco contains more than 4000 chemicals, several of which can cause cancer and are dangerous to health.

Nicotine: a severely addictive drug found in tobacco smoke. Nicotine increases heart rate and blood pressure, which makes the heart work harder. It also constricts blood vessels, reducing blood flow to many organs.

Tar: Tar coats the lungs like soot in a chimney making it harder to breathe. Tar in tobacco contains dozens of chemicals that cause cancer.

Carbon Monoxide: The presence of this gas in tobacco smoke makes the heart beat faster. The gas takes the place of oxygen in the blood. The ability of blood to deliver oxygen to various body tissues is thereby reduced.

- The poisons in tobacco smoke that are inhaled by both smokers and passive smokers include nitrogen oxides, hydrogen cyanide, arsenic (white ant poison), ammonia (floor cleaner), phenol (paints), naphthalene (mothballs), cadmium (car batteries), urethane, acetone (paint stripper), carbon monoxide (car exhaust), DDT (insecticide) and butane (lighter fuel).



<u>TOBACCO TOLL</u>

How many deaths are attributed to tobacco globally?

- Presently tobacco contributes to 4 million deaths per year globally. According to the World Health Organization (WHO), tobacco kills more people annually than AIDS, alcohol, other addictions (drugs) and accidents put together. This figure is expected to rise to 10 million tobacco attributed deaths per year by 2025. A recent study by WHO has cautioned that unless smoking patterns change, one billion people are expected to die from smoking habit in the 21st Century which is 10 times more than those killed by tobacco throughout the 20th century.

Tobacco use is the single largest preventable cause of death and disease.

Is the tobacco toll in India expected to rise?

- In India, deaths attributable to tobacco are expected to rise from 1.4% of all deaths in 1990 to 13.3% in 2020. India, according to these projections of WHO, will have the highest rate of rise in tobacco related deaths during this period, compared to all other countries/regions.

Tobacco kills between 8-9 lakh people each year in India! This will multiply many fold in the next 20 years.

What is the projected tobacco toll for teenagers who smoke?

- ***Of 1000 teenagers smoking today, 500 will eventually* die of tobacco related diseases - 250 in their middle age and 250 in their old age.** Those who die earlier lose on an average 22 to 26 years of life compared to a non-smoker. Even those who die later suffer ill health due to tobacco related diseases in the middle age.

Does passive smoking contribute to tobacco deaths?

- The WHO estimates that many children die of respiratory diseases induced by the tobacco smoke they are forced to breathe. Adults who are exposed to passive smoking may die of cancers, heart attacks or lung diseases.

INFACT TOBACCO CAN KILL A BABY EVEN BEFORE BIRTH:

Smoking by the mother during pregnancy may lead to still birth or a low birth weight baby who is at higher risk of many health problems.

RATIOS OF EXCESS DEATHS IN TOBACCO USERS OF MUMBAI

100 male non-smoker deaths	***: 139 male cigarette smoker deaths***
100 male non-smoker deaths	***: 178 male beedi smoker deaths***
100 female non-tobacco user deaths	***: 135 female oral tobacco user deaths***

ILL EFFECTS OF SMOKING ON HEALTH

What are the various ill effects of tobacco consumption on our health?

It has been proved beyond doubt that tobacco use can lead to

- **Cancer of** Mouth, Throat, Lungs, Larynx (voice box), Oesophagus (food pipe), Urinary Bladder, Kidney, Pancreas and Cervix

- **Chronic Bronchitis and Emphysema**

Bronchitis and emphysema result from the breakdown of the cilia (hair like cells for cleaning) in the airways. The cilia become paralyzed or destroyed by cigarette smoke. This reduces their ability to remove phlegm and protect the lungs against infection. Affected persons cough frequently and are very short of breath. They sometimes turn blue because the blood does not have enough oxygen.

- **Heart and Blood Vessel disease**

— Artery clogging process (Atherosclerosis) is accelerated by tobacco products. Smoking damages the lining of blood vessels and leads to fat deposition.
— This artery clogging process is called atherosclerosis.
— This can lead to heart attack, stroke and peripheral vascular disease (narrowing of the leg arteries leading to blockage). Diseased arteries can also swell up (aneurysms) and burst.
— The younger one starts smoking the higher is the risk. Middle age smokers may be at 4 to 6 times excess risk of heart attacks, especially if they started smoking as teenagers.

The largest number of deaths caused by tobacco occur due to heart attacks.

- **Reproductive Problems**

— Impotence in men has been associated with smoking.
— Male smokers have more abnormal sperms and a lower than average sperm count.
— Women smokers are less fertile and may become sterile.
— Smoking during pregnancy may result in a stillborn baby, low birth weight, premature birth and spontaneous abortion.

- **Eye Problems**

— Smoking has now been related to the risk of early cataracts and also for the degeneration of the retina (the screen in the eye, which helps us to see things). These may lead to partial or complete blindness.

- **Cigarette smoking can also cause**

— Bad Breath
— Smelly hair, clothes and hands
— Stained teeth and fingers
— Facial wrinkles, especially around the mouth and eyes.

Tobacco has, over the years, been identified to be a risk factor for many other disorders and the list continues to increase each year

Not only cigarettes, but all forms of tobacco smoking are dangerous. In fact bidi is even more lethal than cigarettes. Even so called 'low tar' cigarettes are dangerous to health!

Does smoking a single cigarette have immediate health effects on the body?

- Smoking just one cigarette can have immediate health effects on the body. These include:

— Temporary increase in blood pressure and heart rate
— Constriction of blood vessels, which slows down blood flow around the body.
— Binding of carbon monoxide to haemoglobin in the blood stream.
This reduces the amount of oxygen delivered to the tissues.

WARNING!
EACH CIGARETTE SMOKED COSTS 14 MINUTES OF LIFE!

<u>SMOKERS ARE AT A GREATER RISK!</u>

At how much greater risk of disease is a smoker as compared to a non-smoker?

- Smokers *vs.* Non-smokers

Smokers have:

- 20-25 times risk of developing lung cancer.
- 2-3 times risk of having a heart attack.
- 3 times risk of sudden death.
- 30-60% more sick days.

Both sexes are at risk of early heart attacks!

Male

- On an average, a male smoker suffers a heart attack 7 to 8 years earlier than a male non-smoker.

Female

- In women smokers, heart attacks occur about 16-19 years earlier than in women who are non-smokers.

- Women have upto 20 times greater risk of heart attack and stroke if they smoke whie taking oral contraceptives.

PASSIVE SMOKING AND ITS EFFECTS

What is Passive Smoking?

- Exposure to environmental tobacco smoke (ETS), also known as passive smoking occurs from breathing in other people's smoke. It comes from both the burning end of a cigarette ("Side Stream' smoke) and from the smoke breathed out by a smoker.

Is Side Stream smoke dangerous?

- The 'side stream' smoke that comes out of the burning end of the cigarette has a very high concentration of dangerous chemicals. These chemicals get diluted as they mix with the room air but the net intake by non-smoker is still high enough to put them at a considerable risk of suffering the many health disorders that smokers are afflicted by.

A passive smoker breathes side stream smoke which contains three times more nicotine and tar and 50 times more cancer causing substances than mainstream smoke.

What are the ill effects of Passive Smoking on health?

- Passive smoking has been shown to lead to an increased risk of cancers and heart attacks in the spouses of smokers.
- It can contribute to or worsen other people's breathing problems and causes lung cancer and nasal sinus cancer.
- ETS irritates the eyes, nose and throat.

How is a non-smoker affected by a smoker?

- It has been found out that a non-smoker living with a smoker who smokes 20 cigarettes per day inhales the quantity of tobacco smoke as if she herself has smoked 3 cigarettes per day.

Studies have shown a 20%-30% increased risk of fatal and non-fatal cardiac events in non-smokers living with smokers.

Is passive smoking especially dangerous for children and babies?

- Children are especially vulnerable, if adults smoke around them. It can cause the following:

— Low birth weight babies
— Sudden infant death syndrome (SIDS) - instances where babies suddenly stop breathing during sleep.
— Bronchitis and Pneumonia
— Middle Ear infections
— Additional episodes and increased severity of Asthma.
— Reduced rate of lung growth

WHO estimates that nearly 700 million, or almost half of the world's children, breathe air polluted by tobacco smoke, particularly at home.

OTHER FORMS OF TOBACCO CONSUMPTION

What does the term 'smokeless tobacco', mean?

- The term 'smokeless tobacco' is used to describe tobacco that is consumed in an unburned form. Smokeless tobacco can be used orally or nasally. Smokeless tobacco in India is used as chewing tobacco,

with or without lime. Gutkha, Khaini, Zarda are all examples of such use. Snuff is an example of the nasally used form.

Smokeless tobacco is highly dangerous as it causes a variety of cancers, majorty of these being oral cancers.

Is oral tobacco a common cause of cancers in India?

- Oral cancers account for 18-20% of cancers in India and are mainly tobacco induced.

India has the highest number of oral cancer cases in the world.

ABSTAINING IS BETTER THAN QUITTING BUT QUITTING HAS BENEFITS TOO!

Is it possible to quit the habit of tobacco use?

- Tobacco is an addiction, which is easier to avoid than to abandon. However, there are definite health benefits of quitting. It is possible to quit through will power. Counseling and social support are helpful. Sometimes, severe addicts may require temporary use of nicotine chewing gum or nicotine patches to help in the deaddiction process.

What are the benefits of giving up smoking?

- The benefits of giving up smoking are:

— the body starts repairing itself within 24 hours.
— one will get free from most of the nicotine in 7-10 days.
— the risk of a heart attack is greatly reduced within 2 to 3 years of giving up smoking.
— the risk of lung cancer may take up to 20 years to normalize to the level of non-smokers but the risk does get progressively lower during this period.
— appetite and taste improve.
— the disappearance of bad breath and odour of smoke from clothes and home is a refreshing change.
— relief from smoker's cough is welcome to the smoker as well as others near him.
— family and co-workers are protected from passive smoking.

Persons who quit the habit before 35 years of age benefit the most but it is never too late to quit!

A recent study from Finland revealed that a 50-year old male smoker who smokes about 20 cigarettes a day will gain 12 minutes of life for every cigarette he does <u>not</u> smoke!

TOBACCO AND ITS EFFECTS ON THE ENVIRONMENT

What is the effect of tobacco production on our environment?

- Tobacco is one of the major contributors to deforestation. This is because the 'curing' of raw tobacco needs the burning of wood fuel. This requirement is large. For curing I hectare of tobacco, I hectare of trees are cut down and burnt.

It has been estimated that for every 300 cigarettes smoked, some one somewhere has killed a tree!

- Tobacco is an environmental nightmare because of
- the paper consumed in the manufacture and packaging of cigarette products
- the large amount subsoil water drained by tobacco farming
- the extensive use of pesticides and soil erosion due to deforestation.

<u>EFFECT OF TOBACCO ADVERTISEMENT</u>

Why ban tobacco advertising?

- Advertisements use congenial settings and associations with popular individuals or events to create a mood in favour of tobacco use. These seductive images and associations outweigh the health warnings against tobacco and break the mental barriers against initial experimentation with tobacco. After this initiation has occured, the addictive nature of tobacco takes a firm grip. A ban on advertising will reduce the number of new addicts by protecting nonsmokers from such false allure of misleading tobacco advertisements.
- Aggressive advertisement strategies of tobacco products include direct and surrogate advertising through sponsorship of sports, cultural and other popular events. These advertisements tempt youngsters to experiment with tobacco, by legitimizing and glomourising the tobacco product logos.
- Smoking is extremely uncommon among sportsmen since smoking and fitness do not go together. Similarly, a good singer will stay far away from tobacco to protect the voice and the lungs. Yet, false associations are promoted with sports and culture to increase the acceptability of tobacco in young minds as well as to find a convenient vehicle for mass advertising of tobacco brand logos. Young people are often influenced by role models from sport or cinema, who do not themselves smoke but promote tobacco products or brand names for the sake of money.

Ban on tobacco advertisement reduces tobacco consumption especially by preventing new addicts. There is clear evidence of this in countries which have imposed such a ban.

(Compiled by HRIDAY - Health Related Information Dissemination Amongst Youth and disseminated by SHAN — Student Health Action Network - email: krsreddy@satyam.net.in; ksreddy@ndf.vsnl.net.in)

WHO's International Conference on Global Tobacco Control Law: Towards a WHO Framework Convention on Tobacco Control

Dr. Gro Harlem Brundtland
Director-General, WHO

Mr. Prime Minister, Distinguished guests !

It gives me great pleasure to be in India today- this is a country and a people close to my heart. I am especially pleased to be speaking to an audience of some of the world's best legal and public health experts. We come from a wide range of backgrounds, such as public health, medicine, law, media, economics and social sciences. What has brought us here to Delhi is our common resolve to highlight the grave problems arising from tobacco in the developing world. This meeting will explore possible means to address these problems, taking into account developing country perspectives. It will be one of many important contributions over the next months and years towards a strong international legal tool to fight tobacco, the Framework Convention on Tobacco Control.

India, with its myriad of cultures and its complex economic and social realities, in many ways mirrors our new globalized world. But despite its diversity, its disparities and its conflicts, a strong sense of unity has kept this immense nation - which harbors nearly one sixth of humanity - together in a viable and vivid democracy.

The rest of the world is only slowly waking up to this realization that all of us, no matter the physical, cultural or economic distance, are dependent upon each other. One region's poverty is another region's lost opportunity. One area's industry may be another area's environmental disaster, and one country's disease outbreak today, may be another country's epidemic tomorrow.

In 1987, the World Commission on Environment and Development, which I had the privilege to chair, came up with the concept of "sustainable development" on the basic premise that development needs of

nations must be met in a way that allows future generations to fulfill their own aspirations. Enshrined in this concept was the whole notion of solidarity, the right to knowledge and access to basic life-sustaining information for all nations and people. That idea is now institutionalized globally in a series of environmental treaties. It has entered the vocabulary of policy makers. We will add health to that illustrious list.

The importance of the role of health in overall development is being rapidly embraced by governments around the world. It is a conceptual shift not unlike that which took place with the environment 25 years ago. Increasingly, governments realise they need to integrate health into the broader context of development. They are more than simply a mere consumption expenditure. Instead, health is increasingly being seen as a major opportunity for growth, productivity, human progress and poverty alleviation.

My point of departure is a broad reading of the role of health in development. WHO is indeed the specialised agency on health - but the purpose of our work is not only to combat ill-health, although that remains key - it is also to promote healthy populations and communities - and indeed to demonstrate how wise health interventions can spur development.

There was a period in development thinking - not so long ago- when access to public services, such as health and education, would have to wait until countries had developed a certain level of physical infrastructure and achieved a certain level of economic strength. Once countries had become fully industrialised - large outlays on health care seemed appropriate and necessary. Indeed, it was seen as a sign of national prosperity and success. Experience and research over the past few years have shown that such thinking was at best simplified, and at worst plain wrong.

We have seen that developing countries which invest relatively more on health in an effective manner are likely to achieve higher economic growth. In East Asia, for example, life expectancy increased by over 18 years in the two decades that preceded the most dramatic economic take-off in history. A recent analysis for the Asian Development Bank concluded that fully a third of the Asian “economic miracle” resulted from these gains. We have also observed how health spending in some of the world’s richest countries can reach very high levels and still not provide necessary and quality health services to all their citizens.

Health is not only an important concern for individuals, it plays a central role for the society in achieving sustainable economic growth and an effective use of resources. And health is even emerging as an important element of national security.

With globalization, all of humankind today paddles in a single sea. There are no health sanctuaries. Diseases cannot be kept out of even the richest of countries by rearguard defensive action. The separation between domestic and international health problems is losing its usefulness as people and goods travel across continents. Two million people cross international borders every single day, about a tenth of humanity each year. And of these, more than a million people travel from developing to industrialized countries each week. This is not only an issue of infectious diseases. With an explosion of international trade, travel and media, new cultural influences spread faster than ever before, driven by economic aspirations, entertainment and advertising. Many of the effects are positive, but we also see drastically negative effects, such as unhealthy changes in diet - and the rapid spread and increase of tobacco-use.

Disease and death do not stop at national borders, but still our efforts to fight them are far from being sufficiently international. The time has come for both health and foreign policy to reflect the needs of the world’s public with greater emphasis on international health security and its contribution to world peace. Foreign policies and international business practices must acknowledge transnational threats of disease, the dangers of trade in products and technologies that are harmful to health, economic and health disparities between and within countries and population growth. Countries must collaborate to develop strategies that ensure sustainable human security.

As the world’s leading health agency seeking value for our constituents we have chosen our setting - we will play an active role in this work; as a facilitator, as a provider of evidence and best practices - and as a moral compass.

One of the most important political legacies of this century has been the universal ideal of human rights that are now irreversible as tenets of international law. The past 30 years have seen the birth of hundreds of organizations around the world that have given a voice and a focus to issues that affect our lives on a daily basis. Our search for justice is as old as we are. Our search for life in harmony with laws - whether they be natural laws or those that have developed over centuries - is as old as humanity himself. Access to basic health is, in the final analysis, a search for justice.

It is my firm belief that where there is no vision, there is no progress. The success of our vision lies in the hands of our Member States. As nations feel increasingly compelled to co-operate with each other to solve their problems, the development of binding global public health norms and commitments will become crucial. Although international health law is still in a nascent and dynamic stage of development, it must address both the positive and negative health impact of globalisation. Consequently, health development in the 21st century is likely to make wider use of international legal instruments to take advantage of the opportunities afforded by global change and to minimize the risks and threats associated with globalisation.

Today, our focus is tobacco. But, the work we do on tobacco has wider consequences. As the composition of the global burden of disease changes, so must the emphasis of our work. In addition to continue with the past century's very successful effort to limit or eliminate infectious diseases, the work we are doing on a Framework Convention on Tobacco Control stakes out the way disease must increasingly be fought and prevented in this brand-new century. This is the first time WHO is exercising its constitutional right to negotiate a set of globally binding rules. The Framework Convention is a product and a process and a public health movement.

Turning principle into practice is not an easy task, but we will lead the way and as I said, I am counting on your help. Our task is not to produce worldwide regulations. It is to build a International legal framework which will assist and support countries in their national regulation process. The success of our approach will depend on political commitment, capacity building in public health law and economics, public support and effective enforcement. Legislation and regulation have to strike a balance between individual freedom and public needs and interests.

For the next few days, you will hear about the science, economics and politics of tobacco control. We know that tobacco use is a risk factor for some 25 diseases. It was here in India in 1964 that the first link between oropharyngal cancer and chewing tobacco was identified. Studies from eastern India were the first in the world to link palate cancer to the chewing of tobacco.

As the recent report of the World Bank has clearly documented, the risks to health and health systems from tobacco are widely underestimated. So are tobacco industry tactics. When I first looked into the issue of tobacco use world-wide I was unprepared for what I was to learn about the extent and manner in which the tobacco industry was marketing a product that killed half of its consumers. I was appalled to see how the tobacco industry had subverted science, economics and political processes to market a lethal and inherently defective product that imposed a massive burden of disease and death on countries. I am outraged by what I learn with each passing day about the tobacco industry from previously secret documents that have now come to light mainly due to court cases in the United States, in particular Minnesota. I want to use this platform to call on national and international public health experts to work with their Constitutions as well as their countries' international commitments to help prevent and combat this man-made epidemic.

Tobacco is freely allowed to kill one person every eight seconds. That is four million preventable deaths per year. Today in India, tobacco kills 670,000 people every year. In China, if present smoking patterns continue, about a third of the 300 million Chinese males now aged 0-29 will eventually be killed by tobacco. Countries like Canada and Sweden that had long bucked the tobacco epidemic now see it reappearing again. No country and no people are safe from the tobacco menace.

I have occasionally heard comments to the effect that smoking is mainly an industrialized country problem and that WHO should focus its energies on fighting the traditional diseases of poverty, such as malaria, tuberculosis and childhood diseases. Such comments are understandable but misinformed. If

unchecked and unregulated, by 2030, tobacco will kill 10 million people each year. seventy percent of those deaths will occur in the developing world, with India and China in the lead. If nations do not act individually and together, in the next 30 years, tobacco will kill more people than the combined death toll from malaria, tuberculosis and maternal and child diseases. Every tobacco related death is preventable. That is our message. That is our challenge.

Fifty years ago the world found a solution for polio. Today we are on the verge of eradicating it. Fifty years ago scientists and researchers linked tobacco to cancer and other diseases. I wish I could tell you that the world has risen to the tobacco challenge as vigorously and unequivocally as it fought polio. The unacceptable reality about tobacco is that the health community has lost out to the tobacco industry aggressively seeking new markets and newer victims. The world will have little cause to rejoice over the health gains of the eradication of polio if we continue to remain unprepared for, and indifferent to, new challenges such as the one posed by tobacco.

One of the first things that I did at the WHO was to ask our Member Countries to give us a mandate to negotiate the Framework Convention. This new legal instrument is expected to address issues as diverse as tobacco advertising and promotion, agricultural diversification, product regulation, smuggling, excise tax levels, treatment of tobacco dependence and smoke-free areas. The Framework Convention process will activate all those areas of governance that have a direct impact on public health. Science and economics will mesh with legislation and litigation. Health ministers will work with their counterparts in finance, trade, labour, agriculture and social affairs ministries to give public health the place it deserves.

The challenge for us comes in seeking global and national solutions in tandem for a problem that cuts across national boundaries, cultures, societies and socio-economics strata. An early ally has been UNICEF and the Convention on the Rights of the Child. While the Convention on the Rights of the Child does not explicitly include tobacco, several of its articles address over-arching values essential to safe and healthy development of children and as of this year, the States' reporting guidelines have now been amended to include tobacco. For tobacco, this means that the interests of the child take precedence over interests of the tobacco industry. Later as I share with you some tobacco industry tactics to promote tobacco to children, you will see why this is important.

Within the United Nations Family, the World Bank is an essential partner in global tobacco control. Their 1999 report effectively shows that over the long term economies will benefit from tobacco control. They highlight a basic economic fact. If people stop spending on tobacco, they will spend on other goods and services that will generate more jobs and revenue than those from tobacco.

We also have a close working relationship with FAO. Together, we are reaching out to tobacco farmers to ensure that when successful tobacco control reduces demand for tobacco, the economic consequences will be minimized. Our decision to use legally binding mechanisms to circumscribe the global spread of tobacco on the one hand, and to regulate the product itself on the other, is based on sound science and irrefutable documentary evidence. The science that underpins our work is unequivocal - a cigarette is the only freely available consumer product which, when consumed as intended by manufacturers, kills. Let us never forget that.

Nicotine is addictive. A cigarette is not just tobacco leaves rolled in a strip of paper. It is a highly engineered product. The tobacco industry has studied our saliva and central nervous systems to determine the right dose of nicotine to deliver so that addiction occurs and is sustained. Other tobacco products, whether they be beedies, snuff, gutka or spit tobacco, are no less addictive - nor lethal.

Imposing international norms on a global industry that seemingly without qualms can make huge profits from a product that kills is not an easy task. It is our firm belief that to develop a truly meaningful global treaty to control tobacco, our Member States must have a clear understanding of the tobacco industry and its tactics.

Fifty years is a blink of time in a millennium, but fifty years is a long time to sustain a deliberate deception that causes death and disease. For almost fifty years, the tobacco industry has known that tobacco

products cause deadly diseases. I am speaking to an audience of lawyers and public health experts - I chose my words carefully. The tobacco industry which acts as a global force is in the business of selling deception. Deception in science, public health and economics. Internal tobacco industry documents that have now become public bear eloquent testimony to this.

Tobacco litigation began in the United States in 1954. But the major breakthrough came in the 1990s - in the States of Mississippi and Minnesota - with the revelations of millions of pages of documents forced from the files of the tobacco industry and with the framing of different types of legal theories that focused on the conduct of the tobacco industry. For us, these documents show how and why the tobacco industry has been so successful in defeating public health objectives in the past and provide valuable lessons into how the public health community must come to terms with the tobacco industry to make progress in future. We believe the tobacco industry has fractured the tobacco issue by playing different tunes in different countries. In one it is labour, in another it is farmers, in a third it is marketing rights. We believe that through our Constitution and that of our Member States, we can restore the global and national picture so that the truth can emerge to benefit public health for all.

Consider this internal tobacco industry discussion. A document written by a tobacco industry lawyer in 1980 sets out some of the reasons for the tobacco industry's refusal to publicly admit that smoking causes disease. The document was written at a time when the British and American Tobacco Group companies were considering changing their public stance on the issue of causation of disease. The lawyer opposed such a change, and wrote: "If we admit that smoking is harmful to 'heavy' smokers, do we not admit that BAT has killed a lot of people each year for a very long time? Moreover, if the evidence we have today is not significantly different from the evidence we had five years ago, might it not be argued that we have been willfully killing our customers for this long period? Aside from the catastrophic civil damage and governmental regulation which would flow from such an admission, I foresee serious criminal liability problems".

Tobacco companies also denied for decades that smoking was addictive. In private, they recorded in the fifties that smoking was addictive. In 1961, a top industry scientist wrote, ". smokers are nicotine addicts". In 1963, an industry lawyer wrote, "[N]icotine is addictive. We are, then in the business of selling nicotine, an addictive drug ..." In 1979, a tobacco executive considered the hypothesis that "high profits ... associated with the tobacco industry are directly related to the fact that the consumer is dependent upon the product".

The internal documents also demonstrate that the tobacco industry intentionally designed cigarettes to exploit their addictive potential. While nicotine is a naturally occurring component of the tobacco plant, the modern cigarette is a highly engineered and sophisticated product in both manufacture and design. Decades ago, the tobacco industry began to control and manipulate the level and form of nicotine in cigarettes in a variety of ways. Publicly, the tobacco industry maintains that it does not want youth to smoke. Privately the tobacco industry has long recognised that the preservation of its market depends upon recruiting youth. As one document stated, "Younger adult smokers are the only source of replacement smokers ... If younger adults turn away from smoking, the industry must decline, just as a population which does not give birth will eventually dwindle" The tobacco industry documents are replete with discussions of marketing to youth and the need to increase market shares by enlisting youth. The documents are an underused public health tool. But that is about to change. There is some type of tobacco litigation underway in at least 15 countries ranging from personal injury class action litigation in Australia to health cost recovery in Canada to public interest petitions in India.

Last October I called for a preliminary inquiry into whether the tobacco industry has exercised undue influence over UN-wide tobacco control efforts including interfering with WHO's work. Later this year I have called for a meeting of international regulators to set in motion the process of regulating tobacco. The jigsaw is falling into place.

One of the primary objectives of the tobacco industry is to frame tobacco use as an individual and behavioral decision. Adults can chose for themselves if they have full access to information. The same does not apply to children and adolescents. On a given day, between 82,000 and 99,000 young people - sometime

as young as 8 - start smoking or chewing tobacco. Over eighty percent of smokers started before they were 18. By the time they find out, it is too late. The addiction has taken control.

The good news is that we can buck and reverse the global tobacco trend. We know what works and how. Taxes work and the young are especially susceptible to increased prices. Advertising and sponsorship bans work. Smoke free policies work. Such policy interventions could, in sum, bring unprecedented health and economic benefits. WHO's message is that there is a political solution to tobacco and it is routed through policy interventions and political vision.

The Framework Convention on Tobacco Control is a pathfinder in public health. It will assist in placing health at the top of national and international agenda and will create a debate on the wider issues and solutions to health problems. We owe this to ourselves. We owe this more to future generations. Let us never forget that public health is a search for equity, solidarity and justice. Thank you.

(The paper was presented in the Conference in New Delhi, on 7 January 2000)

BUILDING THE EVIDENCE BASE FOR GLOBAL TOBACCO CONTROL

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Introduction

It has been estimated that some three million deaths are attributable to smoking annually and that the number could rise to ten million within 30 to 40 years(*1).* Effective action against tobacco requires countries to understand the magnitude of the adverse effects of smoking on their populations. The effects of tobacco use could be monitored through a global system routinely assembling information on the tobacco trade, tobacco farming, the tobacco industry, the prevalence of tobacco use, associated mortality, and national resources for combating tobacco. Anticipating the demand for a global information system to support new tobacco control efforts, WHO and the Centres for Disease Control and Prevention initiated the development of the National Tobacco Information Online System (known provisionally as NATIONS) in 1998. The baseline data for this system were collected for the Tobacco Control Country Profiles (TCCP) project, led by the American Cancer Society.

In order to demonstrate the potential utility of the data available from the TCCP project and later from NATIONS, we have analysed gender-specific smoking prevalence, per capita cigarette consumption, and changes in cigarette prices. The analyses illustrate the type of comparison that can easily be made between regions and countries by means of data from the TCCP project, which represents the first step in the development of a global tobacco information system. In addition, we highlight issues surrounding the quality of available data, priorities for future data collection, and the need to maintain and improve the system in order to support tobacco control efforts.

Methods

For analyses of smoking prevalence we categorized 191 Member States of WHO, two Associate Members, Hong Kong SAR, China (Province of Taiwan) and the West Bank and Gaza Strip, thus allowing comparison with previous studies conducted by WHO. For analyses of manufactured cigarette consumption we categorized countries according to the Human Development Index (HDI) (*2),* whereby 174 countries are placed in high, medium or low categories based on life expectancy, educational attainment and income,

giving a better measure of basic human capabilities or deprivation than income alone. This made it possible to examine how manufactured cigarette consumption varied with basic standards of living.

Country-specific statistics on smoking prevalence in the TCCP database were obtained through Medline literature searches, personal contacts with investigators and nongovernmental organizations engaged in tobacco control, and reports from health ministries, national statistical offices and WHO country representatives. The minimum inclusion criteria for a survey were the following items of information: date of the survey or its publication; characteristics of respondents (age and sex distribution); a description of sampling and data collection methods; and the questions used in assessing smoking behaviour.

When several studies from the same country met these criteria they were compared with respect to geographical coverage, dates, sample sizes, response rates and methods. Wherever different sources yielded contradictory data on prevalence, historical data wee reviewed and experts working in the country were consulted. The most recent and representative studies on adult smoking prevalence were included.

Regional estimates of smoking prevalence were derived on the assumption that all studies reported current daily and occasional smoking among persons aged 15 years and older and that they reflected the smoking statuses of the populations in 1998. The gender-specific prevalence estimates for each country were weighted by the size of the male and female populations aged 15 years and above. The values were averaged so as to obtain WHO weighted regional prevalence estimates. Each of these was assumed to apply to an entire WHO region. The number of smokers in each region was estimated by multiplying the prevalence by the total population aged 15 years and above.

Data on per capita cigarette consumption in the TCCP were derived from production, import and export data in several electronic databases and national statistical yearbooks available for public scrutiny. Statistics on cigarette imports, exports and production were obtained from the United Nations Statistical Division's Commodity Trade Statistics, the Industrial Commodity Production Statistics databases, the United States Department of Agriculture, and the Food and Agricultural database.[1] For countries where these data were unavailable, figures from national statistical agencies and private research firms were used.

Cigarette consumption in each country was calculated as *production plus imports minus exports,* using a three-year moving average for the years 1975 and 1985. For high development countries, consumption was also calculated for 1995, a year in which trade and production data were not available for most countries in the medium and low development categories. In the medium development category, consumption was calculated for 1994, and in the low development category it was calculated for 1991. Average per capita consumption was estimated within each HDI category by combining the country-level consumption figures and dividing by the population aged 15 years and above. Adult per capita cigarette consumption in the medium development category is presented both including and excluding China and is calculated separately for China.

Data on cigarette prices, reflecting prices in the autumns of 1990 and 1999 unless otherwise noted, are presented by HDI category in US$ on the basis of values in local currencies and exchange rates in force when surveys were conducted (price and exchange rate data were obtained from the Economist Intelligence Unit). For countries where prices were sampled in more than one city, averages of all the city prices were calculated. Average annual real percentage changes in price between 1990 and 1999 were calculated using the percentage difference in local currency prices while taking into account or discounting for inflation. These calculations were facilitated by creating an inflation index based on estimates provided by the Economist Intelligence Unit.

Results

Prevalence of smoking

Data on smoking prevalence were available from countries with populations representing 55.4% of the African Region, 96.3% of the Region of the Americas, 88.7% of the Eastern Mediterranean Region, 88.8% of the European Region, 96.9% of the South-East Asia Region and 99.3% of the Western Pacific Region **(Table 1).**

Men were almost four times as likely to smoke as women, yet 23% of females were smokers in the Region of the Americas and 23.4% were smokers in the European Region. Smoking prevalence among men was highest in the Western Pacific Region and lowest in the Eastern Mediterranean Region. Among women, smoking prevalence was highest in the European Region and lowest in the Western Pacific Region. There were about 1.235 billion adult smokers in a total world population of 5.926 billion (US Central Intelligence Agency's estimate of the world's population in 1998). On the assumption that there will be no change in the global prevalence of smoking, it can be expected that the number of cigarette adult smokers will reach 1.278 billion this year (2000) and 1.671 billion in 2020 because of changes in the world population(*3).*

Table 1. **Gender-specific smoking prevalence by WHO Region, 1998**

	Weighted prevalence estimate(%)			Estimated No. of smokers (millions)			No. of studies	% of total population represented by studies
Region	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**		
Africa	36.2	9.4	22.9	59.6391	15.1086	74.7477	15	55.4
The Americas	34.7	23.0	28.7	98.0754	67.8454	165.9209	30	96.3
Eastern Mediterranean	34.2	8.7	21.8	49.7699	11.9266	61.6965	17	88.7
Europe	43.5	23.4	33.0	144.3112	84.6990	229.0102	40	88.8
South-East Asia	48.2	8.2	28.6	242.6307	39.4710	282.1017	6	96.9
Western Pacific	62.3	5.8	34.4	387.2792	34.9310	422.2101	23	99.3
Total	**47.9**	**12.4**	**30.2**	**981.7055**	**253.9816**	**1235.687**	**131**	**92.3**

Source: American Cancer Society and World Health Organization, TCCP database.
Note: Several small countries for whcih population figures were note available did not contribute their population weight to the analysis.

Per capita consumption

The percentages of populations in the calculations of per capita consumption varied by HDI category and by year **(Table 2)**. Fig. 1 presents estimates of per capita cigarette consumption for over 15-year-olds in 1975, 1985 and 1995 by HDI category.

Table 2. **Population coverage by Human Development Index category in 1975, 1985 and 1995.**

Level of human development	**1975**	**1985**	**1995**
High	97.8%	97.3%	87.6%
Medium	83.1%	85.9%	85.5%[a]
Low	77.2%	81.6%	73.7%[b]

[a] Population coverage in 1994.
[b] Population coverage in 1991.

Source: American Cancer Society and World Health Organization, TCCP database.

Note: Coverage represents the percentage of the total population within each category that also reported consumption figures. Within each level of human development no population figures were available for certain countries, and these were not taken into account in the above calculations.

The estimates for countries in the medium category are presented with and without China and separately for China. The highest per capita consumption of manufactured cigarettes occurred in the high development category and decreased between 1975 and 1995. Countries in the medium development category experienced a progressive 46% increase in consumption between 1975 and 1994, reaching 1139 cigarettes per capita in

1994. China experienced an increase in per capita consumption at a greater rate than that of the medium development category as a whole from 1975 to 1994. In total, China experienced a 128% increase in per capita consumption between 1975 and 1994. Without China's contribution to the medium development category, its per capita consumption would have decreased slightly between 1985 and 1994. Per capita cigarette consumption in the low development category remained fairly constant from 1975 to 1991.

Price of cigarettes

Table 3 presents trends in cigarette prices in various countries. Substantial increases in real cigarette prices, adjusted for inflation, occurred in only France, South Africa, the United Kingdom, and the USA. No increase or a substantial decrease in cigarette prices occurred in more than half the countries listed. This was especially true of imported brands.

Table 3. **Cigarette prices in selected countries by human development level: 1990-99.**

	Marlboro (US$ per pack of 20 cigarettes)			Local brand (US$ per pack of 20 cigarettes)		
Country	**1990**	**1999**	**Average real annual % change**	**1990**	**1999**	**Average real annual % change**
High human development						
Canada	3.85	3.50	-0.18	3.40	2.67	-1.67
Czech Republic	1.78	1.29	-5.66	1.05	1.15	-2.88
Denmark	4.64	4.37	-0.69	4.55	4.30	-0.67
France	1.98	3.26	7.40	1.20	2.76	14.86
Germany	2.86	2.87	-0.19	2.75	2.79	-0.09
Japan	1.75	2.58	1.01	1.61	2.30	0.70
New Zealand	2.63	3.81	4.78	2.67	3.62	3.78
Poland	1.34	1.21	-5.90	0.26	0.99	10.55
Sweden	3.90	4.32	3.20	3.72	4.20	3.45
United Kingdom	3.40	6.27	7.46	3.40	6.27	7.46
United States of America	1.74	3.16	4.72	1.71	3.04	4.39
Medium human development						
China	1.49	1.83	0.55	0.96	1.73	5.97
Costa Rica	0.89	0.69	-4.74	0.70	0.64	-3.63
Egypt	1.47	1.16	-6.52	1.10	1.16	-4.99
Hungary	1.46	1.01	-6.03	0.52	0.89	1.43
Kenya	2.15	1.59	-3.09	0.65	0.80	2.13
Mexico	0.52	1.07	0.16	0.45	0.86	-0.70
Malaysia	0.96	1.11	1.74	0.89	0.76	-1.50
Morocco	2.21	2.84	-0.76	0.98	1.45	0.78
South Africa	1.07	1.37	4.45	0.68	1.37	13.48
Thailand	1.16	1.09	-0.97	0.50	0.73	4.67
Turkey	1.66	1.32	-6.06	0.92	0.99	-4.44
Venezuela	0.46	1.44	3.06	0.46	1.28	1.49
Low human development						
Bangladesh	1.41	1.37	-1.25	1.13	0.85	-3.50
Conte d'Ivoire	1.87	0.94	-4.72	1.54	0.78	-4.67
Nigeria	1.26	0.83	-4.13	0.44	0.83	8.83
Senegal	1.15	0.80	-1.07	0.77	0.32	-5.09
Zambia	0.89[a]	2.03	-12.09	0.74[a]	0.64	-14.93

[a] 1993

Source: Economist Intelligence Unit; calculations made by World Health Organization.

Discussion

Using the TCCP database to support tobacco control

The analyses presented above demonstrate the utility of the data available in the database for supporting programme and policy planning for tobacco control. For instance, analyses of smoking prevalence and cigarette consumption can assist in identifying the countries with the greatest need for resources devoted to tobacco control efforts. Globally, some 30% of adults were estimated to be smokers in 1998. By 2020 the number of smokers will have increased by 35% if global smoking prevalence remains the same. Per capita cigarette consumption trends over 20 years, however, demonstrate the changing nature of the pandemic. If consumption trends continue as they have been since 1975, an increase in cigarette consumption will occur in economically developing countries and a gradual decrease will occur in economically developed countries. The countries with the greatest expansion in the cigarette market will be those with the smallest resources available for tackling the health problems associated with tobacco use. While these analyses used very broad economic categories, the TCCP database allows comparisons between countries, geographical regions or other groupings which might lend support to tobacco control initiatives.

Analyses of average real percentage changes in cigarette prices help to identify policy areas in which national governments can improve their efforts in tobacco control. The cigarette price trends in our study suggest that there is scope for increasing taxes on tobacco products, most notably in countries belonging to the low and medium HDI categories, where cigarette prices have failed to keep up with increases in the general price level of goods and services. Cigarettes were more affordable in 1999 than at the beginning of the decade. Increasing the price of tobacco products is arguably one of the most effective means of curbing their consumption *(4)*. On average, a price increase of 10% can be expected to reduce the demand for cigarettes by about 4% in high-income countries and by about 8% in low-income and middle-income countries *(5)*. The young *(6,7)* and the poor *(8,9)* tend to be more responsive to price changes than other groups of people. Analyses using data from the TCCP database, and later from NATIONS, can provide evidence in support of the World Bank's tobacco tax and price increase strategy and related policies.

Using the TCCP database for needs assessment

In addition to providing an evidence base for tobacco control, the database identified disparities between countries in regard to the amount and quality of data available for analysis. This indicated priority areas for future data collection and tobacco control surveillance efforts. For instance, smoking prevalence statistics were not found for 33% of the countries, provinces and territories. The prevalence of smoking in the African Region has probably been influenced by the lack of data because only half the Regional population contributed to the estimate, whereas the data for the other regions cover more than 85% of their populations. Compared to previously reported statistics the representativeness of Africa's regional smoking prevalence data has improved. In 1997, for example, WHO's Tobacco or Health Programme analysed regional smoking prevalence in the early 1990s *(10)*. The new estimate covers 22% more of the African Region's population. The validity of estimates in developing regions can be expected to improve with increased access to country-specific data and increased capacity and resources for monitoring risk factors. Standardized survey methods would also increase the utility of regional estimates. In all regions there were variations between countries in the survey methods employed, and regional estimates were affected by the comparability of country-specific data.

The TCCP database made it possible to see ways in which consumption estimates could improve through standard reporting of country-level data to an information system. The accuracy of most per capita consumption estimates is limited by the information *not* included in each country's official trade and production statistics. In countries where the preferred cigarettes are not of the manufactured kind the TCCP data underestimate consumption. Country-level data related to the consumption of roll-your-own, bidi and kretek cigarettes would usefully supplement information on manufactured cigarettes from databases of the United Nations and the United States Department of Agriculture. This is particularly relevant to the Eastern Mediterranean Region and Central and Southern Asia, where tobacco consumption is likely to be underestimated if traditional forms of use are excluded from the calculations.

Routine data collection is less likely to provide the means of overcoming certain additional obstacles to estimating consumption, indicated below with a view to aiding the interpretation of TCCP data.

The calculations we used did not account for factors that increase or decrease the true volume of trade and production, such as smuggling and tax exemption. The consumption formula does not account for cigarette stocks held in reserve by cigarette wholesalers and retailers. This factor only becomes apparent if a very large net change in stock volume occurs from one year to the next. The per capita consumption calculation includes only persons aged 15 years and older in its denominator and thus does not account for younger smokers. The importance of this factor is greatest in certain developing countries where the largest proportion of the population consists of people under 15 years of age.

Both the wide range of analyses possible using TCCP data and the limitations of these data indicate a need for standardized data collection techniques at the country level and greater access to data by researchers working outside each country. In the future, NATIONS can be expected to increase access to data. The system will integrate information systems and data sources electronically to facilitate the tracking of country-specific information across a wide range of indicators, including smoking prevalence and tobacco consumption, laws and regulations, morbidity and mortality, industrial organizations, tobacco economics, and programmatic interventions against tobacco use. NATIONS will report time-trend data for each indicator and will update them periodically. In this way, the evidence base for tracking the progress of tobacco control policies will be increased and the common electronic framework necessary for storing and updating data, making information easily accessible to researchers, tobacco control advocates, and policy-makers over the Internet will be provided.

Conclusion

The results of these analyses using data from the TCCP database demonstrate the potential applications of an information system devoted to tobacco control. Because TCCP compiled data on a wide variety of indicators, from employment in tobacco manufacturing to pharmaceutical treatments for tobacco dependence, future analyses are not limited to the type of prevalence, tobacco consumption and price comparisons presented here. Nor are they restricted to groupings by WHO Region and HDI level. Unfortunately, neither TCCP nor NATIONS can directly meet the need for standardized survey and data collection methods at country level. This requirement is best tackled through capacity-building at local level with leadership from WHO and others in accordance with defined principles *(11).* The establishment of a permanent electronic framework for data management and retrieval, however, may provide an incentive for improving and increasing tobacco control efforts by making the results of independent research available to the global tobacco control community.

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(Courtesy: Bulletin of the World Health Organization, 2000, 78 (7))

A STUDY ON THE REGULATORY FRAMEWORK FOR CONSUMER REDRESS IN THE HEALTH CARE SECTOR IN INDIA

EXECUTIVE SUMMARY

Background

Despite many reports in the popular press about the plight of health care consumers and the implementation of the Consumer Protection Act (CPA) of 1986, there is paucity of information about the current system of redress in the health sector in India. The present study seeks to help close this gap by providing an in-depth account of the functioning of patient systems within the country. The key questions addressed by this study are:

* What is the current state of patient redress mechanisms in place at different types of health facilities both in public and private sectors?
* What is the current status of adjudication of problems between consumers and medical providers in various Consumer Forums established under Consumer Protection Act?

Methods

The study reviewed the current system of complaint redress in the private and public health care sector from three perspectives: the institutional view, the legal view and the patient's viewpoint. A questionnaire was administered at 81 randomly selected public and private sector hospitals of different sizes in Delhi, Lucknow, and Hyderabad to examine how facilities currently respond to consumer concerns. Another systematic sample of 86 medical negligence cases was selected from those filed at District Forums in the same three cities. The cases were reviewed, and structured interviews conducted with the complainants, providers, lawyers, and Consumer Forum members.

Results

The results suggest that public and private health facilities lack a professional approach to managing patient concerns, and have weak in-house redress systems. For example, a complaint box/book was physically found in only 33% of the private hospitals, and 22% of public hospitals. Only 17% of the private hospitals and 15% of public sector hospitals had guidelines for receiving and processing complaints. An analysis of the cases filed at Consumer Forums showed that very few of them were for medical reasons (they ranged from 0.1% to 2% of total cases). Complainants were largely educated and forward caste males. Only half of the complainants were satisfied with the Consumer Forum mechanisms, compared with 65% of the providers. Lond delay in reaching judgement was a major problem. Over 90% of the cases took longer than one year to reach judgement, whereas the law mandates a ruling within 90 days.

Conclusion

This study highlights the poor functioning of patient redress mechanisms at the facility level in both public and private sectors. Specific recommendations outlined in this paper include the use of mandatory citizen's charters and institutionalization of complaint procedures. Both consumers and providers need to be better educated about how to address consumer concerns and complaints at the facility level. Standards concerning the quality of care are needed so that patient knows what they can expect, as well as standards established for consumer redress mechanisms.

For cases of alleged medical negligence and other consumer complaints that cannot be dealt with at the facility level, there is a need to strengthen the legal redress mechanisms. Although the Consumer Forums show some encouraging signs, there is a great need to broaden the scope of legal redress for medical negligence for the poor and uneducated. Efforts are also needed to develop ways to speed up the redress processes through the Consumer Forums, in addition to alternative regulatory and redress mechanisms. This report recommends how to improve the functioning of Consumer Forums, strategies to increase consumer awareness and empowerment, and recommends amending the Consumer Protection Act and Indian Medical Council Act, in part, to bring public hospitals under the purview of the CPA.

Introduction

Developing mechanisms to effectively increase the voice of communities in the management of health services is of utmost importance today. A participatory approach to health administration entails a constant system of checks, whereby those who benefit from the services participate actively in the efficient functioning of the system. An effective redress mechanism enables consumers to have direct access to systems that rectify the inefficiencies and maladies of the present order. Consumers in India have for their benefit the Consumer Protection Act 1986, whose provisions empower them to challenge the quality of health care services provided to them.

Unlike developed countries where mechanisms of consumer redress are firmly established as an integral part of the larger tradition of civic rights, the subject of consumer redress is a relatively new concept in India, particularly in the health sector. The deterioration of health care services, coupled with a general lack of accountability of providers towards consumers, brought home the need for building a more permanent system of redress in the health sector. The significant judgement by the State Commission of Orissa in Smt. Sukanti Behera v. Dr. Sashi Bhusan Rath (1993), upholding the rights of patients to challenge the quality of health care services, was a landmark decree in the history of consumer redress within India. Till then, the medical fraternity had generally resisted acknowledging that medical services came within the purview of the broader provisions of the Consumer Protection Act. The judgement by the Supreme Court in the Indian Medical Association v. V.P. Shantha (1995) settled the matter by explicitly including medical services under the protective sheath of the Consumer Protection Act.

Payment for health care services within the country in both the public and the private sector may be classified into roughly three board categories.

* One, where services are rendered free of charge to everybody availing the said services.
* Two, where charges are said to be paid by everybody, and
* Three, where charges are required to be paid by persons availing services but certain categories of persons who cannot afford to pay are rendered services free by charge.

In accordance with the judgement delivered in the above mentioned Indian Medical Association v V.P. Shantha case, the right to challenge the quality of health care services extends to: (a) all patients who pay for services (second category), and (b) such patients belonging to the poorer section availing free services from such institutions otherwise rendering services on a payment basis (third category). It is noted that under the Supreme Court ruling, the first category where services are rendered totally free of charge are excluded from the purview of the existing Consumer Protection Act.

Key Questions

To ensure sustained delivery of quality services in the health sector, service providers need to constantly look at the dimensions of service, by encouraging constant customer feed back. In India, much of the services sector has little relationship with its consumers. In order to encourage the consumer to demand quality goods and services, the Consumer Protection Act 1986 was enacted to reach quick and relatively inexpensive redress for removing defects and service deficiency, and to pay compensation for the loss or damage caused by deliberate acts of negligence or unfair trade practices, which had become difficult in the traditional legal system.

The present study by VOICE seeks to provide an in-depth account of the functioning of the prevailing system of patient redress within the country. The need for such a study primarily arose from the paucity of knowledge regarding the current system of redress in the health sector in India. The key questions addressed by the study are:

* What is the current state of patient redress mechanisms available at different types of health facilities both in public and private sectors?
* What is the current status of adjudication of problems between consumer and medical service providers in various Consumer Forums established under Consumer Protection Act?

Methodology

For conceptual clarity the study chose to review the current system from essentially three standpoints. First is an institutional view at the level of hospitals. Secondly is a legal view from the Consumer Forums. Finally, we look at the viewpoint of the consumer. The study examined procedures adopted at health care facilities to respond to consumer concerns and complaints, as well as the utility and effectiveness of different forums established under the Consumer Protection Act. It took into consideration consumer, provider and legal perspectives and review of outcomes of medical negligence cases in legal and statutory (medical councils) systems.

In a related study, The Indian Law Institute conducted a detailed desk review by cataloguing the current laws and status of adjudication between consumers and medical service providers in each part of the legal system. VOICE conducted this field study to capture the ground reality concerning redress mechanisms at health facilities themselves, and the next line of legal redress, the Consumer Forums.

To begin with, a detailed list of all the information required for the study was drawn up. Once all the information necessary to attain the objectives was listed, experts were identified in each of the segments and discussions were held with them. Questionnaires were prepared in October 1999 for pilot testing in hospitals and consumer sector based on these discussions. The questionnaires were pilot tested in Delhi in November 1999. Based on pilot testing and suggestions received, the questionnaires were suitably modified before they were finally used for the field survey.

The field survey was conducted in 3 major centres: Delhi and Lucknow in the north and Hyderabad in the south. The field survey was divided into two parts. The first part dealt with consumer redress at the hospital level, while the second dealt with medical negligence cases filed in Consumer Forums. For the hospital level study, a random selection of hospitals was made from a list of hospitals in each city, stratified by facility size covering both public and private sectors. In the private sector, nine big hospitals (more than 100 beds), 15 medium (31-100 beds) and 30 small (less than 30 beds) sized hospitals were selected. In the public sector, three tertiary hospitals, nine district level hospitals, and 15 Primary Health Centres (PHCs) were covered **(Table 1)**. A structured survey was made of the redress mechanisms available at these centres, including an investigation of the responses and outcomes.

For the second part of the study, data were acquired from the District Forums of Delhi, Lucknow and Hyderabad. A sample was drawn of the most recent medical negligence cases heard **(Table 2)**. Interviews were conducted with the concerned complainants, service providers, lawyers and members of consumer forums in all three cities. Cases were divided into two sub-categories, namely, pending and closed. In all, there were 86 cases, of which 46 were pending and 40 were closed.

Table 1:- Distribution of Samples Covered in Hospital Sector

	Private				Public				Grand Total
	Big	Medium	Small	Total	Tertiary	District	PHC	Total	
Delhi	3	5	10	18	1	3	5	9	27
Lucknow	2	6	10	18	1	3	5	9	27
Hyderabad	3	5	10	18	1	3	5	9	27

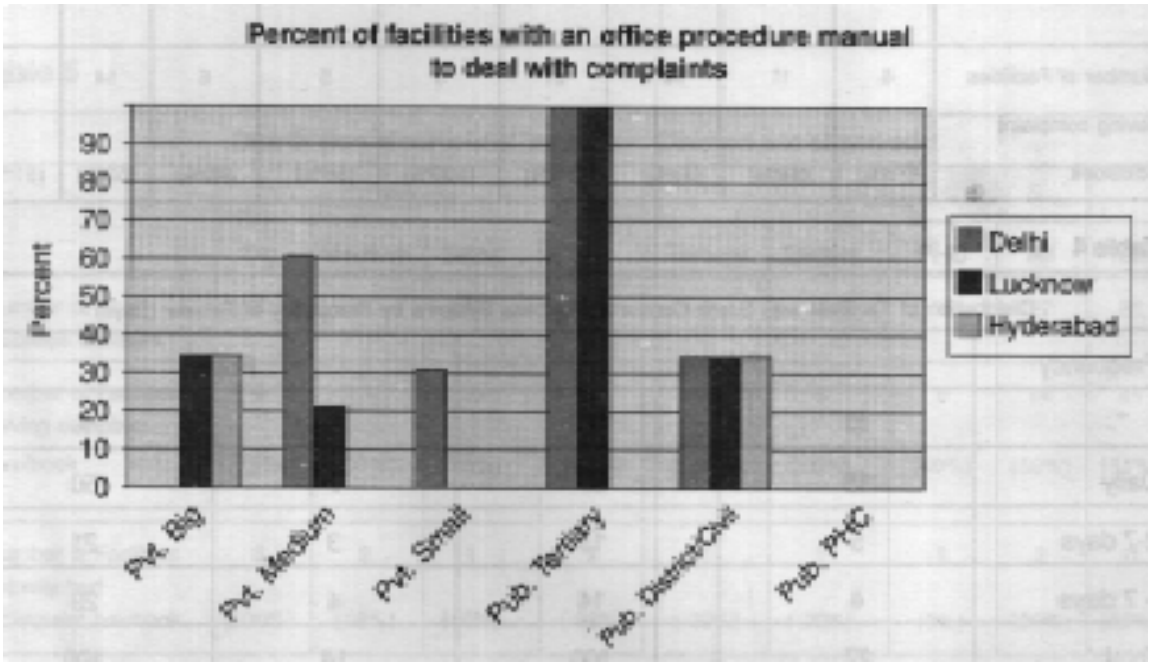
Table 2:- Distribution of Samples in Consumer Sector

Cases Type	DELHI	LUCKNOW	HYDERABAD
Pending Cases	16	16	14
Post Cases	16	16	8

Consumer Redress at the Hospital Level

A total of 81 hospitals were surveyed as part of the study. As demonstrated below, the survey revealed a certain degree of slackness on the part of hospital authorities in terms of offering facilities for prompt redress of consumer complaints.

Despite the fact that the provisions of the Consumer Protection Act clearly requires all complaints made, to be in a "written" form; out of the total number of 81 surveyed hospitals, only 38 units (47%) admitted to having complaints in writing. This means that 43 units (53%) do not even bother to take the complaint in writing or acknowledge the complaint in writing. The lacuna in the redress system was more apparent when a lesser number, 12 units (15%), confirmed having a written manual for receiving and processing complaints. A written manual is a format detailing the guidelines to be observed while attending complaints by any aggrieved person who makes a complaint against a doctor or service made available to a patient. It may be interesting to note that none of the tertiary hospitals in the public sector in Hyderabad had written manuals, whereas those in Delhi and Lucknow did. Few of the private hospitals had documented complaint procedures, including none of the three big private hospitals in Delhi. A standardized procedure to handle complaints was clearly lacking amongest the facilities sampled for the study. While the big and the medium sized hospitals in both the private and the public tended to have specific units to resolve consumer disputes, the smaller units tended to fall back on informal systems or had no systems at all.



Tables 3 & 4 below characterise the mechanisms of redress available to patients in the surveyed hospitals.

Table 3

Distribution of Facilities Surveyed by Availability of Patient Redress System

	Private					Public			
	Big	Medium	Small	All	Tertiary	District	PHC	All	Total
Number of Facilities Covered	8	16	30	54	3	9	15	27	81
Number of Facilities having Procedure manual or guidelines for receiving and processing complaints	2 (25%)	4 (25%)	3 (10%)	9 (17%)	2 (67%)	2 (22%)	04 (0%)	13 (11%)	(15%)
Number of Facilities having unit/individual responsible for dispute settlement	8 (100%)	11 (69%)	13 (43%)	32 (59%)	2 (67%)	6 (67%)	10 (67%)	18 (67%)	50 (62%)
Number of Facilities having complaint box/book	6 (75%)	11 (69%)	10 (33%)	27 (50%)	3 (100%)	5 (56%)	6 (40%)	14 (52%)	41 (51%)

Table 4

Distribution of Facilities with some Consumer Redress Systems sby Frequency of Review (Days)

Frequency	Private		Public	
	N	%	N	%
Daily	18	67	7	50
2-7 days	5	19	3	21
> 7 days	4	14	4	29
Total	27	100	14	100

In the private sector, it was observed that as the size of the hospitals became smaller, the complaint redress mechanism opted to become more informal. While all eight of the big private hospitals have more formal systems for dispute settlement, in the smaller hospital, only 13 out of 30 (43%) had specific mechanisms. In the public sector, two thirds of the units at each level had individuals responsible for dispute settlement. In terms of availability of complaint boxes and books, a similar trend was discernible. All the 3 tertiary level hospitals had complaint boxes and books. However, only six PHCs out of the 15 surveyed had such facilities available to the public. In the private sector six out of eight big hospitals had complaint boxes/books and only 10 out of 30 small hospitals had any such facilities available.

It was also observed that the private sector tended to open their complaint boxes/books more frequently than those in the public sector do. For example, in the district hospitals in Delhi, no staff had responsibility for opening complaint boxes and books. In Hyderabad, the district hospitals were found to open their complaint boxes on a weekly basis. During the survey it was observed in one of the premier public institutions of the country, that complaint boxes/books were opened only once in thrity days. Considering the large number of both in-door and out-door patients, the laxity shown by authorities in attending to complaints indicates a poor level of management in the delivery of health care services.

The findings from the site review of facilities confirmed the problem of management inattention to consumer concerns. Although many units in both the public and the private claimed to have complaint boxes and books, the survey team actually was able to locate complaint boxes in only 11 (27%) of the units. In the private sector, whereas all six big hospitals claiming to have complaint boxes/books actually had these facilities, in the medium sized hospitals only two out of 11 and in the small one out of 10 units actually had complaint boxes/books **(Table 5)**. In the public sector, while none of the primary health centres had any such facilities, only in one of the three tertiary hospitals and one out of five district level hospitals were complaint boxes/books found. It was observed that none of these 11 had any accompanying acknowledgement slips for the benefit of consumers making a complaint. Also only two had supplied pens for use by patients wanting to write a complaint. Just over half (54%) of the 81 units had a prominent "May I help you" desk located either in the reception or at the main entrance. Only five (6%) had a visible board highlighting the complaint redress procedures, close to the help desks. Only 17(21%) had a board displaying prices of services offered.

Table 5: Distribution of complaint Book/Box: Claimed and observed

	Private				Public				
	Big	Medium	Small	All	Tertiary	District	PHC	All	Total
Number of Facilities Covered	8	16	30	54	3	9	15	27	81
Number of Facilities having complaint box/book	6 (75%)	11 (69%)	10 (33%)	27 (50%)	3	5 (100%)	6 (56%)	14 (40%)	41 (52%) (51%)
Number of Facilities actually had complaint box/book	6 (100%)	2 (18%)	1 (10%)	9 (33%)	1 (33%)	1 (20%)	0 (0%)	2 (22%)	11 (27%)

In terms of complaints, an inquiry into the nature of complaints lodged revealed that complaints relating to clinical services were surprisingly few. In the private sector, the largest number of complaints (43%) were related to sanitation, followed by complaints in hospital utilities (41%) and billing (28%). In the public sector, sanitation was once again the most frequent complaint (41%), followed by hospital utilities (30%) and medical care 26%. In the private sector, only six units (11%) acknowledged receiving complaints about

medical care, compared to seven (26%) in the public sector. The fact that complaints related to the quality of clinical services did not come up as a major issue in either the public or private sector may reflect poor knowledge and low expectations of the consumers regarding the quality of health services, or simply that providers did not acknowledge clinical problems. **Table 6** below provides a glimpse of the types of complaints commonly received by the surveyed units.

Table 6: *Distribution of Types of Complaints Commonly Received According to Type of Facility*

Facilities	Private				Public								
	Big(8)	Medium(16)	Small(30)	All(54)	Tertiary(3)	District(9)	PHC(15)	All(27)					
Medical Care	1 (13%)	3 (19%)	2 (7%)	6 (11%)	1 (33%)	3 (33%)	3 (20%)	7 (26%)					
Nursing Care	2 (25%)	6 (38%)	4 (13%)	12 (22%)	1 (33%)	1 (11%)	2 (13%)	4 (15%)					
Sanitation	5 (63%)	11 (69%)	7 (23%)	23 (43%)	3 (100%)	4 (44%)	4 (27%)	11 (41%)					
Hospital Utilities	6 (75%)	7 (44%)	9 (30%)	22	1 (41%)	4 (33%)	3	8 (44%)		(20%)	(30%)		
Security	3 (38%)	3 (19%)	(10%)	3	(17%)	9 (67%)		2 (0%)		0 (0%)	(7%)	0	2
Billing	5 (63%)	5 (31%)	(17%)	5	15 (28%)	(0%)	0	(11%)	(0%)	1 (4%)	0	1	
Waiting room	2 (25%)	4 (25%)	(10%)	3	9 (17%)		1 (33%)		(44%)	4	(0%)	0 (19%)	5
Reprot	4 (50%)	1 (6%)	(0%)	0 (9%)	5	(33%)	1	(0%)		0 (0%)	0 (4%)	1	
No complaints	0 (0%)	(0%)	0 (27%)	(15%)	8	8 (0%)		0 (11%)		1 (27%)	4 (19%)	5	

In terms of handling of complaints, the private sector appeared to be more adept than its public counterpart. Whereas all eight big hospitals in the private sector had personnel designated specially to look into consumer complaints, in medium sized hospitals only 69% had a specific unit or individual responsible for dispute settlement, while only 40% of small hospitals had designated personnel. In the public sector, two out of three tertiary hospitals reported having such specific mechanisms, whereas two thirds of the district level hospitals and only 53% of the PHCs admitted to having such mechanisms. Specially designated officers, such as Manager (Housekeeping) or other senior level administrative officers as Manager (Administration), usually looked into the complaints in the private sector, especially in the big and medium hospitals. In the public sector, the officers-in-charge or the concerned Medical Superintendent looked into the complaints. Most complaints were claimed to be resolved on an average in weeks' time, especially those related to hospital amenities and administrative matters. The time taken for resolution of clinical was however more variable and longer, ranging between 1 day to 20 days. **Table 7** below, illustrates the time taken to resolve complaints in public and private sector hospitals.

Table 7: Time Taken to Respond to Complaints in Public and Private Hospitals

Time Taken to respond	Public Sector		Private Sector			
to complaint	N	%	N		%	
< 1 day	4		15	15		28
1-7 days	13	48	28		52	
> 7 days	2	7	0		0	
No Complaints	8	30	11		20	

Total	27	100	54	100

An interesting point which came to fore during the survey, was that only 7% of all facilities surveyed claimed to have had a medical negligence case registered against them in the last one-year. Five of these six facilities belonged to the private sector, and only one, a tertiary level hospital in Lucknow to the public sector. Nearly half of the facilities undertook measures to protect themselves in advance, particularly in the private sector. Seven of the eight big private hospitals were covered under professional indemnity insurance. 12(40%) out of 30 small and 13(80%) out of 16 medium units in the private sector were also either covered by insurance or resorted to hiring legal counsellors in case of need.

Consumer Redress at the Consumer Forum Level

In accordance with the provisions of the Consumer Protection Act, every district of the country should have a consumer court referred to as the District Forum, and every state capital, a State Commission. At the country level, a National Commission functions as an apex body. The courts are arranged in a hierarchical order (district-state-national), with the Supreme Court of India vesting the final authority to adjudicate on all appeals arising in matters of consumer concern.

At present, the redress system in health is still in a very nascent state in India. Medical cases make up a very small percentage of the total cases appearing before Consumer Forums. The data given below in **Table 8** shows the number of cases filed in the State Commission and District Forums in Delhi, Uttar Pradesh and Andhra Pradesh, indicating that medical scases comprise between 0.1% to 2% of the cases heard.

Table 8: Distribution of Medical Negligence Cases Filed in Various Consumer Courts in Three States.

	1997			1998			1999		
Courts	Total Cases Filed	Medical Cases	% of medical Cases	Total Cases Filed	Medical Cases	% of medical Cases	Total Cases Filed	Medical Cases	% of medical Cases
National Commission	NA	51	NA	2031	51	2.5	3221	46	1.4
State Commission Delhi	1450	32	2	1573	32	2	1755	36	2.1
State Commission Uttar Pradesh	NA	NA	NA	1113	NA	NA	999	NA	NA
State Commission Andhra Pradesh	2650	NA	NA	3406	NA	NA	4185	NA	NA
District Forum Delhi	6472	NA	NA	17283	32	0.2	20620	47	0.2
District Forum Lucknow	2260	8	0.3	2004	12	0.6	2138	13	0.6
District Forum Hyderabad	1400	NA	NA	4026	42	1	2052	2	0.1

NA: Not Available.

Consumer Forums and Consumers

As part of the study, 86 medical negligence cases were randomly selected in all from the District Forums in the three cities. Of these 86 cases, 40 were disposed cases while 46 were pending cases. **Table 9** below, gives a demographic profile of the complainants surveyed.

Table 9: Characteristic of Sampled Consumers Cases

		Delhi (32)	Lucknow (32)	Hyderabad (22)	Total (86)
		%	%	%	%
Age	20-35	3	27	27	19
	36-45	50	34	27	37
	46-55	28	27	18	24
	55+	19	14	28	20
Sex	Female	40	41	18	33
	Male	60	59	82	67
Education	Up to 8th Class	15	12	14	14
	Matric	19	16	14	16
	Intermediate	3	6	26	12
	Graduate & above	63	66	46	58
Caste	SC/ST	3	6	0	3
	Others	97	94	100	97
Occupation	Service	38	41	36	38
	Business	40	9	14	21
	Professional	3	19	5	9
	Agriculture	0	3	9	4
	Others	19	28	36	28
Annual	<Rs. 60,000	59	59	59	59
Household	Rs. 60,000-1,20,000	31	31	18	27
Income	>Rs. 1,20,000	10	10	23	14

An analysis of the above table reveals certain interesting findings on variables governing consumer behavior. For example, the educational profile revealed clearly the link between education and consumer awareness. Nearly 60% of the respondents had graduate or postgraduate education, and were largely involved in formal sector occupations. The profile also revealed that persons with fixed incomes used the Forums more often than people without a steady source of income.

The filing of only three cases (3%) by persons belonging to the SC and ST, and 30 (33%) cases by women indicates that the vulnerable sections of the society are yet to fully benefit from the consumer redress mechanisms established in India.

The cases of medical negligence case filed by the above consumers were namely those associated with wrong diagnosis treatment leading to suffering and even death of patients. The reasons for claims from analysis of 46 pending cases are presented in **Table 10.**

Table 10: Distribution of Pending Cases by Reasons for Claims

Nature of Claim	Number	%
Wrongful death- Patient dying on account of wrong treatment	7	15
Physical loss of function - Patient losing physical function such as losing eye sight, inability to walk etc. on account of wrong diagnosis and treatment	10	22
Other kinds of damage-Suffering due to operative or other treatment procedures without loss of physical	29	63

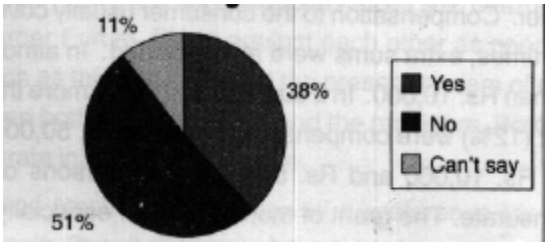
function or death

Out of the 86 complainants, 43(50%) claimed to have approached the hospital authorities first. The main reason according to these 43 consumers for approaching the Consumer Forums was dissatisfaction with the redress mechanisms at the hospital level. The denial of a proper hearing and the fact that their complaints were not taken seriously by hospital authorities made them approach the Consumer Forums. More than a half (57%) of the sampled consumers claimed to have approached the Consumer Forums on their own. Only 4% acknowledged taking the help of consumer groups. The media had played a role in influencing 7% of complainants, who stated that their awareness about consumer issues was due to frequent media coverage of such issues. Most of the complainants (80%) were aware of the consequences if the complaints were found to be vexatious.

The review of the 46 pending cases in Delhi, Lucknow, and Hyderabad brought forth a number of interesting facts. Whereas 18 (39%) out of 46 cases were filed within the previous year, 22 (48%) of cases were filed 1-5 years ago, and 7 (13%) were found to have been filed more than 5 years ago. In terms of the status of the pending cases, only 12 (26%) were found to be in their final stages. In 21 (46%) others, the evidence requested from the opposite party was still being awaited, while in 13 (28%), an initial reply from the respondent had yet to come. No reasons stood out for the delay from the complainant's perspective: 27% of them blamed the Consumer Forums for the delay, whereas 19% found the non-co-operative attitude of the concerned hospital authorities to be the chief stumbling block. The prevailing practice of Forums to give repeated adjournments every time the hospital authorities did not present themselves was quoted as a relevant case in point. Whereas 5 (11%) persons remained indifferent, 23 (51%) expressed unhappiness, and only 18 (38%) claimed to be generally satisfied with the working of the Consumer Forums **(figure 2)**.

Figure 2.

Percent of Consumers Satisfied with the Consumer Redress Mechanisms, Panding Cases



Similar trends were found among the 40 completed cases. Only 15 (38%) were satisfied with the procedures, whereas 24 (60%) expressed dissatisfaction. The delay in the proceedings was a major problem. In 37 (93%) of the cases, the time taken to reach judgement was beyond the stipulated period of 90 days. Only 5% had been resolved within the span of a year, whereas 80% of the cases had taken between 1-5 years, and 15% had taken more than 5 years.

Figure 3. Time Taken to Reach Final Judgement

Just over half of the complainants (56%) were unhappy with the orders passed at the end of the litigation. One fifth of the persons found the decision to be "one-sided", while 10 others (25%) felt that the complexities associated with medical negligence cases had not been adequately explored.

In terms of outcomes, out of the 40 "completed" cases, 33% were dismissed, 42% the concerned provider was asked to pay compensation to the consumer, and in 25% of cases, the consumer was required to pay the provider. Compensation to the consumer usually covered the principal amount paid by the consumer, though at times, extra sums were also included. In almost half of these cases (47%), the compensation was less than Rs. 10,000. In 2 such cases (12%), more than Rs. 1,00,000 was awarded as compensation, another 2 (12%) were compensated between Rs. 50,000 and Rs. 1,00,000 and 5 (29%) were awarded between Rs. 10,000 and Rs. 50,000. Ten persons out of these 17 cases found the compensation incommensurate. The grant of monetary relief especially in cases of medical negligence though commendable, was considered by these 10 as being too little for all the trouble taken. In comparison to the awards, the costs for the complainants were also modest. In 7 (22%) of all cases, consumers were found to have spent less than Rs. 1000 in 17 (53%) cases between Rs. 1000-5000, and in 8 (25%)>Rs. 5000. Of the total group of completed cases, 40% were unhappy over the fact that they had been unable to recover the money they had spent.

Cases where the consumer was required to pay the defendant were usually cases where the charges leveled against the provider could not be proved. The compensation amounts in such cases were small and were generally found to range between Rs. 2000 to Rs. 5000.

Only 11 (27%) out of the 40 complainants decided to appeal at the higher level to challenge the decision of the District Forum. Considering the number of man-days spent and the money involved, there was a ready aversion to spending more money, time and energy at the higher courts. The complainants cited reasons such as "lack of time", "no money to waste", "justice may not be done", as reasons supporting their decision of not contesting the order given.

The Viewpoint of the Providers

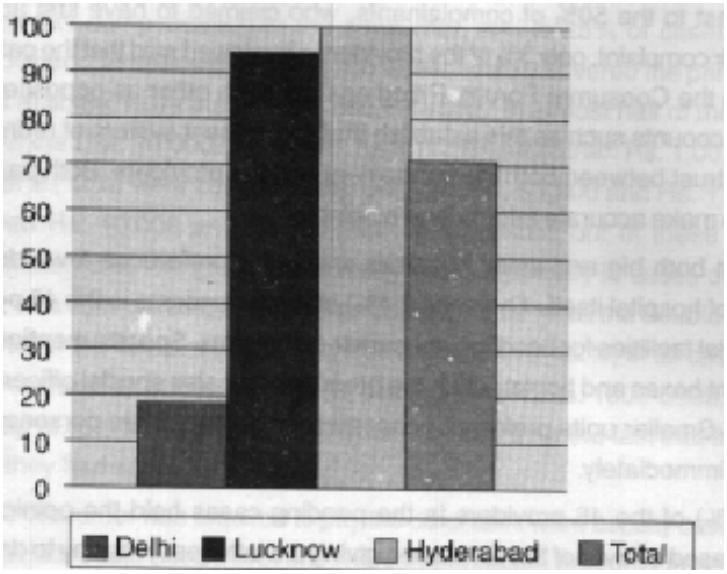
The views of the providers interestingly were found to be quite different from that provided by consumers. In contrast to the 50% of complainants, who claimed to have first approached the health facility to deal with their complaint, only 3% of the providers interviewed said that the patients had approached them before going to the Consumer Forum. Pitted against each other as opposite parties in Consumer Forums, conflicting accounts such as this establish that the present system of redress had inevitably led to a great deal of mistrust between both the consumers and the providers. Both patients were found to be generally reluctant to make accurate information available.

Providers from both big and small hospitals showed a preference towards the resolution of all disputes at the level of hospital itself. Over half (54%) of the defendants in the 46 pending cases claimed to have in place special facilities for handling consumer complaints. Specific mention was made about the existence of complaint boxes and books within the premises and also special officers to whom complaints could be addressed. Smaller units preferred consumers to contact them personally so that complaints could be looked into immediately.

A quarter of the 46 providers in the pending cases held the opinion that the Consumer Protection Act was biased in favor of the consumer, giving the latter easy leeway to drag medical institutions to court. Only 15% of the providers felt that people misused the act. Another 17% of the providers felt that the Act was largely discriminatory by excluding the public sector from its purview, and sought to place the latter in an advantageous position vis-a-vis the private sector. Doctors working in government hospitals were said to be "doubly secured", whereas the one's working in the private sector had always the threat of an impending court case before them.

Nearly a quarter of providers (24%) blamed the heavy filing alongwith the failure to produce concrete evidence on the part of consumers as the main reasons for delay. 19% of providers also felt that Consumer Forums were lax in giving judgements and did not have the technical competence to investigate in depth, cases of medical negligence. One fifth said that they were now very cautious in their dealings with complaints, and had tightened their own monitoring systems to avoid any such eventuality from arising. Given their institutional status, providers were generally found to be well equipped legally to face the challenges of prolonged litigation. 70% of the providers were found to have engaged lawyers, while some hospitals had regular legal staff managing their cases. In Delhi, only 3 (19%) of the defendants in the pending cases engaged lawyers whereas in Lucknow 15 (94%) and in Hyderabad 14 (100%) engaged lawyers. The difference between Delhi vis-a-vis Hyderabad & Lucknow may be due to lack of in-house legal resources. The difference may also be due to the high awareness within the providers in Delhi about the Consumer Protection Act, which allows appearing before the Consumer Forums in person rather than by engaging lawyers **(Figure 4)**.

Figure 4. Percent of Defendants who Engaged a Lawyer



Finally, 65% of the providers expressed satisfaction with the final orders passed, while 35% were dissatisfied. Only 25% of the providers expressed a desire to go onto the next level of appeal.

The Viewpoint of the Lawyer's

71 lawyers were interviewed in total. The lawyers, like the consumers and the providers, were divided into roughly two main categories- one, those whose cases were pending, and the other whose cases had been completed. In the pending cases, out of the 39 lawyers interviewed, 30 (77%) claimed to be working on behalf of consumers, while 9 (23%) were found to represent the providers. Out of these 17 claimed to be working on more than 50 consumer cases at a time.

More than a quarter (28%) of 39 lawyers with pending cases felt that the heavy volume of cases before the courts was the prime reason for delays. The existing infrastructure of the Consumer Forums was largely inadequate in handling such a large volume of cases. Staff shortages coupled with lack of experienced members in the Consumer Forum added extra pressure on those already working. In such circumstances the net product was that the entire process of consumer redress became essentially slow and tardy, as a result of which very few of the clients actually expressed any desire to go onto a higher court for redress.

Out of the 40 closed cases the lawyers were hired in 32 cases. Out of these 32 cases, only 37% of the lawyers were asked by their clients to file an appeal at a higher level, while 63% reported no desire to carry on litigation proceedings any further.

Most of the lawyers (87%) expressed a desire for specific reforms in the consumer redress system. Some of the measures advocated are shown below**:**

Table 11: Recommendations for Improving the Efficiency of Consumer Forums

Recommendation	No.	%
Increase both the staff and the number of Consumer Forums per district	12	35
Make the period for responding and producing evidence time bound	6	17
National Commission should formulate clear procedure for consumer forums	3	9
Reduce the scope for political intervention in the working of consumer forums	3	9
Let the affected person to be present physically if possible	2	6
Make one single person in charge of the forum instead of present three member bench	2	6

The Viewpoint of Members of the Consumer Forums

19 members belonging to different Consumer Forums were interviewed in the course of the study. More than three fourths (79%) of them agreed that medical negligence case were usually not disposed of within the stipulated period of 90 days. Five members felt that the heavy number of cases was primarily responsible for the slow processing of medical cases. According to four members, the complexities of these cases make it nearly impossible as well as inadvisable to give a quick judgement within the stipulated time frame, and was the main reason for delay. Four other members felt that inadequate infrastructure of Consumer Forums was the prime reason.

Most members (84%) interviewed were of the opinion that the present system, however imperfect, had indeed provided an opportunity to both women and persons belonging to poor families to voice their concerns and seek justice against the poor delivery of health care services. The same proportion also felt that since government hospitals were run by the tax payer's money, it was important that such institutions also be brought under the purview of the present Consumer Protection Act. The Consumer Protection Act was felt to have helped generate a degree of accountability in the private sector, and it was time for the rules to be

amended so that the Indian public could seek redress against both the private and the public sector hospitals.

Issues

The survey at the hospitals and the accompanying review of medical negligence cases heard at Consumer Forums have confirmed the need for urgent and immediate reforms in the present system of consumer redress in health care. The findings revealed a disturbing trend of ad hoc practices in the management of consumer complaints in the majority of hospitals. Whereas the large and medium sized hospitals in both the public and private were found to have established mechanisms for dispute settlement, smaller hospitals were found to resolve disputes primarily through informal means. However, in both the big and the small hospitals, the present system offered no concrete guarantees to the complainants that the authorities would actually address their problems within a specified time frame. The absences of a fixed period for the resolution of disputes inevitably meant that most cases were either resolved almost immediately or were left unresolved. It is of significance that the unresponsive attitude of the hospital authorities was claimed by consumers to be one of the main factors responsible for them to approach the courts.

Concerning the functioning of Consumer Forums, it is noteworthy that the majority of both consumers and providers described their experiences as largely negative. Prolonged litigation on account of recurrent delays was cited as one of the major shortcomings. Most felt that the present infrastructure available for consumer redress was highly inadequate - "less number of forums as compared to the number of cases." In 90% of the cases, the time taken for final resolution went beyond the stipulated period of 90 days. Most complainants quoted this long waiting period to be the most trying aspect of the litigation.

Another aspect to which attention may be drawn, relates to the large over-dependence on lawyers. In the surveyed cases, the providers were found to be more equipped legally than the consumers, relying on their own legal staff to fight their own cases. On the other hand, the majority of consumers surveyed professed to have engaged lawyers to fight their cases. Prolonged proceedings inevitably meant that the majority had to continue paying the lawyers while their cases were still being settled. Whereas many lawyers were found to be working on more than 50 cases at a time and were benefiting from the delays, the complainants were made victims which cost them both time and money.

A third aspect, to which attention may be drawn regarding the functioning of courts, relates to the subject of compensation. At present, there are no existing guidelines that govern the sums to be awarded. At present, most compensation is limited to the price of the medical service provided. In cases of medical negligence where a severe disability or even death is the main issue, the payment of a sum covering just the costs of the medical services is definitely a poor substitute, leaving the complainant highly dissatisfied. In order to restore credibility to the system, there needs to be a review of the compensation policy.

A more important aspect concerns the need for improved access. Access to courts at present, as revealed in the study, is restricted to a large extent to persons having a fixed source of income. The rural and urban poor, scheduled castes and tribes, and women, are largely under-represented, and consequently have little effective voice in the management of health services in the country.

Recommendations

Notwithstanding the complexities and limitation of study involved, this study does indeed find suitable justification for making improvements in the redress system in the near future. It recommends the gradual and steady incorporation of the following few measures into the existing system of consumer redress in the health care sector in India.

1. A mandatory Citizen's Charter for all hospitals

Highlighting clearly the rights of patients vis-a-vis the hospital authorities, in the delivery of health care services, such a Charter must be made available to all patients at all times. At present, only some public sector hospitals have such a Charter, which is referred to as the "Patient's Charter." However, the worth of

such a Charter would only be realized when it is made mandatory for all hospitals, both public and private. The fact that the majority of consumers interviewed stated that the unresponsive attitude of the hospital authorities was primarily responsible for them approaching the courts, confirms that the present pressure on courts can be reduced drastically if proper facilities of complaint redress are effectively maintained at the hospital level. The recommended mechanisms of office manuals, widely accessible complaint boxes and books along with a commitment to resolve disputes within the specified time frame, can all help to considerably reduce pressure, ensuring thus that only the more complex cases appear before the courts.

2. Institutionalize complaints procedures

In both the private and the public health facilities, the existing structure of management could deal with customer complaints more effectively. A written manual, providing specific directions, prescribing also a time frame for such action, would be useful for customers wanting to make a complaint. It is of significance that only 15% of the units surveyed did have proper office manuals available.

The report recommends that the complaint box/book should be made user-friendly with full information on the name and designation of the officer responsible for attending complaints. The present survey revealed that the big and small hospitals, in both the public and privates sectors did have established mechanisms and specially designated officials to manage complaints. However, in most cases it was found that the officials did not have any specific training, nor were they accountable to the customers in general. The prevailing practice of hospital authorities for resolving disputes at their own convenience revealed a certain degree of flexibility, which in the ultimate analysis was found to be against the interest of the consumers. The present report would thus recommend that a specific time frame be adopted, following which the designated officers for handling complaints be made accountable for delayed response on customer complaints. A move such as this to introduce a stipulated time frame would definitely shift the onus of responsibility onto the concerned hospital authorities, providing thus a certain degree of reassurance to the consumer involved. The names of the complaint-handling officers should be prominently displayed to make them accountable to the customers. The report would also like to recommend that the authorities responsible for handling complaints be trained to acquire the necessary skills to handle complaints, so that the resolution of disputes takes place early and to the satisfaction of both parties concerned.

A recurrent problem raised by the survey was the reluctance by stakeholders to share accurate information. The mistrust existing between parties, it was felt, had a definite bearing on the slow and tardy progress of cases in various Consumer Forums. The report would thus suggest that programmes having components of information, communication and education be made available to both service providers and users. The service providers must encourage free flow of information and clear all doubts in the mind of customers.

3. Improve functioning of the Consumer Forums

The survey undertaken revealed an existing shortage of Consumer Forums within the country. A serious consequence of which was that most cases took more than the stipulated 90 days to be resolved. To reduce the work pressure on individual courts and also ensure a speedy trial to consumers, the present report recommends a proportionate increase in the number of District Consumer Redress Forums and State Commissions throughout the country.

In addition, the report also recommends that the concerned Ministry make standard assessment every 2-3 years of the working of District Forums. Such assessment would bring to light the deficiencies and delays. If consumer redress has to have meaning then the very process of redress needs to be made time bound. In medical cases, especially in cases of medical negligence, where verification of charges can take a longer time, the Forums must try their level best to minimize the time taken and not exceed as far as possible the 90 days time frame for reaching a final judgement. The Forums should be more stringent about the granting of adjournments in cases where there are delays in submission of replies or evidence by the providers concerned. A panel of experts should also be made available to the Forums to facilitate viewing of medical

evidence. In effect, there exists an immediate and urgent need to improve the infrastructure available to the Consumer Forums so those consumers may be assured of receiving a speedy trial.

4. Increase public awareness of consumer issues

Consumer redress in the health sector in India, like elsewhere, is intrinsically related influenced by overall consumer awareness. Interviews with consumers who approached the courts for justice, revealed that a high level of awareness did exist among these consumers. Although the study revealed a high level of awareness about the existing laws on consumer protection among those using its provisions, it found that knowledge of specific mechanisms was lacking among both service providers as well as government authorities. However, the fact that only 7% approached the courts influenced by consumer organizations, and that only 2% approached influenced by media, shows that both consumer organizations and media must focus more on programmes related to awareness generation.

5. Empower the Indian consumer

The survey of cases brought to fore the overwhelming level of consumer dependence on lawyers for the Consumer Forums. Many of the lawyers interviewed professed to be working on more than 50 cases at a time. Such high dependence not only makes the whole procedure of redress an expensive affair, it reduces significantly the contribution of the consumer in the process of redress. The present report therefore recommends institutions be built, where consumers can be trained to appear for their own cases, making the process of redress more intimate and relatively free of lawyers. To encourage persons from the disadvantaged sections to readily approach the established Consumer Forums, schemes similar to the prevailing “Free Legal Aid” should be introduced. Even the Government could create a special fund from the Consumer Welfare Fund to be given to consumer organizations to represent medical negligence case of SC/ST patients.

6. Amend the Consumer Protection Act and the Indian Medical Council Act

The authors recommend that the existing Consumer Protection Act and the Indian Medical Council Act should be amended to bring all the medical practitioners and the health care services within the purview of the accountability and compensation aspect of the law, irrespective of being in the private or public sector. Such a move would definitely benefit the average Indian consumer. The number of poor persons who visit government hospitals is large, and the present clause in effect reduces the rights of such patients vis-a-vis those in the private sector, to actually challenge the quality of health care services provided by government institutions. The Constitution of India itself guarantees equality to all its citizens, however the present clause in the Consumer Protection Act actually introduces an element of inequality amongst patients. A more serious concern is that such a restriction also reduces the general accountability that hospitals have towards patients, and since the poor depend on government hospitals for in-door services, the restriction in effect disempowers the poor from realizing their basic citizenship rights. Every citizen should be able to access quality health care services and claim compensation on acts of deliberate negligence or unfair trade practice. Doctors working in Government hospitals and charitable institutions should also be covered under all the existing laws. The Consumer Protection (Amendment) Bill is awaiting Parliament’s approval to cover services like health and medical services and also mandatory services provided by central/state governments.

The consumer complainants have found themselves in a disadvantageous position as compared to doctors who are always well equipped with all documentary evidence of hospital etc. The complainants have found it difficult to muster evidence. Therefore in many cases, the complainant could not prove medical negligence beyond a reasonable doubt. This is one of the reasons why the Indian Medical Council (IMC) Act has been inadequate in dealing with medical negligence, and why the Consumer Forums have become more popular. Moreover, doctors are generally reluctant to give evidence even in genuine cases against their professional colleagues, a common problem in cases involving the Indian Medical Council, prompting some to make additional recommendations about improving the IMC Act.

The Government of India should set-up a core group to formulate and revise the roles and terms of reference of its regulatory bodies in consultation with the health care service providers in the public and private sector and the consumer organizations. The core group should formulate guidelines and standards of service to benchmark the minimum quality levels and prompt redress in case of violations. The regulatory authority should also have the mandate from the Government of India to conduct regular studies on the functioning of the health care delivery institutions in the private and public sector. Such information would help consumers to choose the best service providers and encourage the best practitioners in the marketplace.

Conclusion

The area of consumer redress in health is an important component of the larger attempt towards the democratization of health management. At present in India, increasing awareness among consumers provides a fertile ground for harnessing of a larger consumer movement in the health sector in India. The study has brought to light how the existing structures work for handling complaints in private and public sector health care institutions. The report has given various probable solutions available to the policy makers to build a strong and dependable infrastructure in the health care sector in India. If providers were to benchmark the quality of services provided, and improve upon the existing system of health care management, dissatisfaction and many complaints could be prevented. Such an initiative should be woven carefully in consultation with the service providers, users, consumers groups and the government agencies dealing with health care deliveries.

For cases of alleged medical negligence that cannot be dealt with at the facility level, there is a need to strengthen the legal redress mechanisms. Although the Consumer Forums show some encouraging signs, there is a great need to broaden the scope of legal redress for medical negligence for the poor and uneducated. Efforts are also needed to develop ways to speed up the redress processes through the Consumer Forum, in addition to alternative regulatory and redress mechanisms in health care. This report recommends how to improve the functioning of Consumer Forums, strategies to increase consumer awareness and empowerment, and recommends amending the Consumer Protection Act and Indian Medical Council Act, in part to bring public hospitals under the purview of the CPA.

The authors of the report would therefore like to conclude by expressing hope that in the near future, through the joint initiatives of government authorities, consumer organizations, consumers and the providers, an effective, efficient and credible consumer redress in the health sector may well be made operational to make health services accountable, transparent and accessible for all within India.

Endnote

This matter was also discussed at length in the meeting of the Central Consumer Protection Council (CCPC), which is the advisory group to the Government of India under the provisions of the Consumer Protection Act. The Council felt that there was no need for a screening body consisting of medical and legal experts to investigate whether a prima facie case of negligence existed prior to the trial of a case of medical negligence under the Consumer Protection Act. The Supreme Court of India had already adjudicated on this aspect in the case of Indian medical Association (IMA) Vs. V.P. Shanta and others in 1995 and recently in Spring Meadows Hospital vs. Harjol Ahluwalia in 1998. The argument that only medical experts can judge cases of medical negligence and a Consumer Forum was not competent to go into cases of medical negligence was rejected by the Supreme Court. The Supreme Court also upheld the composition of the Consumer Forums and their competence and the procedure followed by then in adjudicating cases of medical negligence. The council felt that cased of medical negligence were being dealt with care and caution after considering all aspects of medical jurisprudence, expert evidence and court judgements. The Council, therefore, unanimously rejected the suggestions of the Indian Medical Association to set up a screening body under the Consumer Protection Act.

Members of Central Consumer Protection Council (CCPC), drew the attention of the IMC to the inadequate provisions of the Indian Medical Council Act, 1956. One of the reasons for consumers going to the Consumer Forums was that the provisions under the IMC Act were inadequate to deal with complaints of

unethical, unprofessional, and/or negligent conduct against doctors. The Council made the following suggestions for consideration of the Ministry of Health:

* Ethics-cum-Disciplinary Committee of Medical Council to medical and non-medical experts.
* Investigations of medical cases should be made time bound.
* Adequate provisions in IMC Act to exist for action against doctors.
* And lastly, to make it mandatory for all hospitals, whether private or Government, to provide medical records to the patients for their knowledge and use.

(The study was conducted by VOICE - Voluntary Organisation in Interest of Consumer Education, in collaboration with Ministry of Health and Family Welfare, Government of India. The World Bank & the Indian Law Institute. E-mail: evoice@vsnl.net)

REGIONAL CONSULTATION ON PUBLIC HEALTH AND HUMAN RIGHTS

PROGRAMME

10th April, 2001

09.30-10.15 hrs.	Registration
10.15-10.25 hrs.	Pre-Conference Briefing: Objectives and Process.
10.30-11.15 hrs.	Inaugural Session
10.30-10.40 hrs.	Lighting of Lamp by Nitin Singh, a student of class IV, Kendriya Vidyalaya, Sadiq Nagar, New Delhi. Welcome by Shri N. Gopalaswami, Secretary General, NHRC.
10.40-10.45 hrs.	Remarks by Dr. Palitha Abeykoon, Director (HTP), WHO (SEARO).
10.45-11.10 hrs.	Remarks by Justice Shri J.S. Verma, Hon'ble Chairperson, NHRC.
11.00-11.10 hrs.	Remarks by Shri J.A. Chowdhury, Secretary (Health), Ministry of Health & Family Welfare.
11.10-11.15 hrs.	Talk by Kanika Sachdeva, a student of class XII, Blue Bell School, New Delhi. Vote of Thanks by Dr. K. Srinath Reddy, Convenor, NHRC's Core Group on Health.
11.15-11.30 hrs.	Tea
11.30-1.15 hrs.	KEY-NOTE PRESENTATIONS-I Chairs: Dr. Shanti Ghosh &

Prof. V.S. Rekhi

11.30-11.50 hrs. An overview Public Health and Human Rights
- Dr. Palitha Abeykoon

11.50-12.00 hrs. Discussion

12.00-12.20 hrs. Access to Health Care - Alok Mukhopadyaya

12.20-12.30 hrs. Discussion

KEY-NOTE PRESENTATIONS - II

Chairs: Justice K N Kurup &
Prof. N Kochupillai

12.30-12.50 hrs. Nutritional Deficiencies - H.P.S. Sachdev

12.50-13.00 hrs. Discussion

13.00-13.20 hrs. Tobacco Control - Arindom Mookerjee

13.20-13.30 hrs. Discussion

13.30-14.15 hrs. Lunch

14.15-16.30 hrs. WORKING GROUP DISCUSSIONS
(Tea break-15.15-15.30 hrs.)

Group l - Access to Health Care

Chairs: Prof. Jacob John & Prof. Ranbir Singh
Rapporteur : Dr. Lalit Dandona

Group II - Nutritional Deficiencies

Chairs: Prof. Subhadra Seshadri & Prof. N. Kochupillai
Rapporteur: Dr. Farukh Ahmed

Group III - Tobacco Control

Chairs: Dr. Mira Aghi & Dr. Mohan Gopal
Rapporteur: Dr. Bejon Misra

16.30-17.15 hrs. PANEL DISCUSSION
Public Health Law & Human Rights:
Regional Perspectives
Moderator: Dr. Sudershan Agarwal
Panelists: Representatives from SEAR Countries

11th April, 2001

9.30-12.00 hrs. Working Group Discussions (Continued)

(Tea break - 11.00-11.15 hrs.).

12.00-12.45 hrs. PANEL DISCUSSION

Partnerships for public Health Law & Human Rights
Moderator: K Srinath Reddy
Panelists : Prof. Ranbir Singh, Dr. K Vijayaraghavan, Dr. K R Thankappan, Prof. B P Panda, Dr. Mohan Issac, Ms. Manju Vats, Shri M.A.A. Khan, Dr. Srinivas Tata.

12.45-13.30 Lunch

13.30-15.15 hrs. PRESENTATION OF REPORTS BY WORKING GROUPS

Chairs: J V R Prasada Rao & N R Madhava Menon

13.30-13.50 hrs. Presentation by Group I-Access to Health Care

13.50-14.05 hrs. Discussion

14.05-14.25 hrs. Presentation by Group II-Nutritional Deficiency

14.25-14.40 hrs. Discussion

14.40-15.00 hrs. Presentation by Group III-Tobacco Control

15.00-15.15 hrs. Discussion

15.15-15.30 hrs. Tea break.

15.30-16.15 hrs. VALEDICTORY SESSION

15.30-15.40 hrs. Summing up of recommendations by Dr. K. Srinath Reddy, Convenor, NHRC's Core Group on Health.

15.40-15.45 hrs. Remarks by Dr. Robert J. Kim-Farley
WHO Representative to India

15.45-15.55 hrs. Remarks by Shri J.A. Chowdhury,
Secretary (Health), Ministry of Health & Family Welfare.

15.55-16.10 hrs. Concluding remarks by Justice Shri J.S. Verma, Hon'ble Chairperson, NHRC.

16.10-16.15 hrs. Vote of Thanks by Shri N. Gopalaswami, Secretary General, NHRC.

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