

Book
09

PUBLIC HEALTH RESOURCE NETWORK



PHRN

Convergence



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Convergence



PHRN

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State Health Resource Centre, Chhattisgarh

Partners

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State Institute of Health & Family Welfare, Orissa

Population Foundation of India (Regional Resource Centre for RCH)

Child in Need Institute

ICICI Centre for Child Health and Nutrition

Design and Layout

Mishta Roy

Ajay Shah

Printing

Capital Printers, Delhi

Reprinted : August 2010



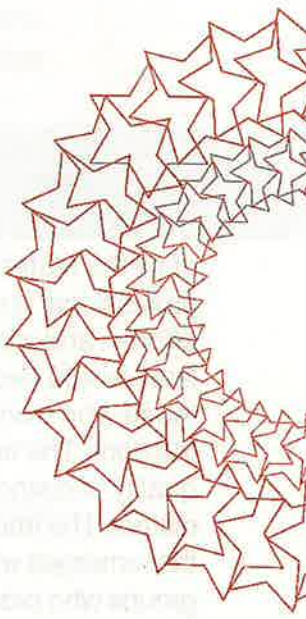
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Public Health Response Network



Preface

Public Health Resource Network

The National Rural Health Mission's vision of a national programme planned at the district level, and if possible at the village level, needs an exponential increase in capacities at all the levels. The NRHM has initiated many steps in this direction. However the nation is vast and diverse. And there are many constraints in existing planning and implementing structures that would need to be overcome. This calls for the official national mission-led process to be supplemented with many varied, creative and massive endeavours at capacity building. State governments, health resource centers, different professional sections and different sections of civil society all need to contribute to meet these enormous needs of capacity building.

This initiative- called the Public Health Resource Network (PHRN) aims to provide support to public health practitioners working in the districts in all aspects of district health planning and public health management. The central element of this initiative is a capacity building effort structured as a distance learning programme. This distance learning programme is not a substitute to formal professional public health training and it does not carry with it any guarantees of increased employment or career options. It is meant to support individuals and organizations both within and outside the health department who are committed to work for a more equitable and effective public health system. This programme complements official training and education programmes through an open-ended, more informal and immediate reaching out with information, tools and a diversity of programme options and perspectives.

A mission needs missionaries, and it needs them where the challenges are greatest- in the remote and most underdeveloped areas of the northern and eastern states, and indeed in all the under-served areas

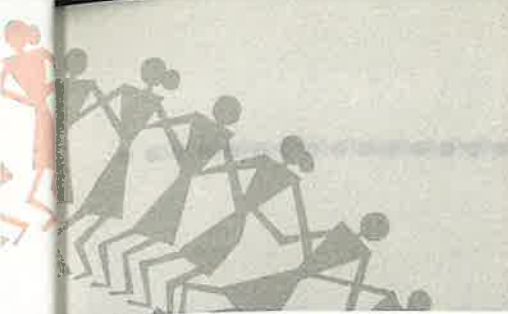


of all the states. A Health Mission needs these missionaries to also be professionals, where being a professional is not one more form of privilege- but a competence that anyone willing to put in the time and effort— and a little expense— can acquire!! Thus the contact programmes at district, regional and state level would evolve into mechanisms of sharing of resources, and building mutual solidarity amongst those who work for change, and of those who work in the health sector because they seek to work for the poor. The true test of the programme is thus not the number of certificates that we issue but the better quality of district plans, a higher motivation of district teams and eventually better health outcomes in the district. The immediate context is the National Rural Health Mission. And hopefully the voluntary network that emerges will contribute over the years to the evolution of a network of district and block level resource groups who provide technical support to all efforts at decentralized planning and decentralized governance and to all societal efforts towards an equitable and just society.

In this book, the ninth volume of the PHRN series, we address the issue of convergence. Convergence is perhaps the most important and yet the most elusive ideal of the public health system. In this book we try to develop an approach to convergence that is both pragmatic and theoretically sound. We hope that the many possibilities for action that emerge from such an approach would be of immediate help to district level health managers to face the challenges of achieving convergence.

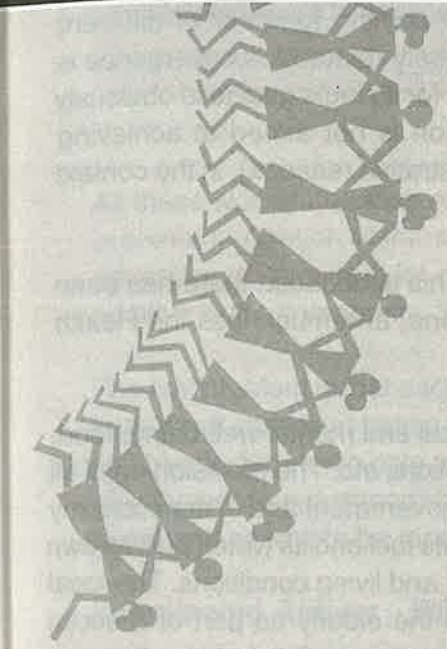
These books are written based on a synthesis of theory from public health professionals with the experience of district level public health practitioners. many of the latter have no formal training on public health, but nevertheless are repositories of much public health knowledge. We intend to continue with this process of learning from both sources, inspired by a democratic vision knowledge needs to be created and managed. The PHRN looks forward therefore to an active process of feedback and interactions that leads to future editions that are enriched even further by district level experience. The PHRN has also set in place a large number of channels through which such knowledge can be shared outside the formal structure of this course. The most important of these are the PHRN website (<http://www.shsrc.org>) and the PHRN e-group (<http://groups.yahoo.com/group/phrn2006>).

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PHRN Programme Coordinator



Lesson ONE

Convergence and the Social Determinants of Health



In this lesson we shall discuss:

- The meaning and necessity of convergence
- Social determinants and convergence
- Social Exclusion and convergence
- Constraints on convergence
- Mechanism of Convergence & Convergence in the District Plan



THE MEANING OF CONVERGENCE

Convergence is one of the policy priorities that the National Rural Health Mission has re-stated. Convergence when used in the context of health planning means the coming together of different programmes, schemes and departments for a single goal. A concept closely related to convergence is 'inter-sectoral coordination'. The coming together of different programmes for a single goal also obviously implies 'coordination' between different sectors. Though all coordination is not aimed at achieving convergence (for example, departments may coordinate for some administrative reasons), in the context of our discussion, they are implied to have identical meanings.

But why is inter-sectoral coordination or convergence at all important? This is because there has been always a recognition that health is not a product of the health sector alone, and much less the Health Department alone.

All the basic necessities of life are essential for achieving a state of physical and mental well-being: food, water, clothing, shelter, a clean environment, safe working and living conditions etc. The provisioning of all of these in modern society however is the task of different sections of the government and of the economy as a whole. In the traditional village, the family made its own food, procured its fuel and its water, built its own shelter and the way they did this defined their livelihood and their working and living conditions. The local community or clan took care of children, pregnant women, the sick and the elderly as part of a social system. Yet all of this has to be accessible to every individual, family and community for good health.

In modern society however, each family is involved in producing only one or other component of this. The provisioning of all families with each basic necessity becomes the function of one or more sectors of the economy and it is also guided or organised by one department of the government. Leaving it to the economy or market forces to take care of these needs has never been a very good idea. This is especially true for certain sectors of the economy where public goods are concerned. Examples of public goods are assets like roads, water supplies, public sanitation, health care education etc. One cannot provide it for one person or group of persons without others also benefiting by it.

DIFFERENT LEVELS OF CONVERGENCE

Parallel Action : *Where effect adds up*

The ANM provides immunisation for children and is also responsible for health and nutrition education and for management of common childhood illness. The Anganwadi provides them with food supplementation and is also responsible for health and nutrition education and for management of common illness. An ASHA has been put in place and is expected to focus on management of common illness in children and also encourage parents to bring children to the Anganwadi for immunisation.



The provisioning of all families with each basic necessity becomes the function of one or more sectors of the economy and it is also guided or organised by one department of the government. Leaving it to the economy or market forces to take care of these needs has never been a very good idea.

All these workers do their respective work and are supervised by their respective staff. Obviously there is some duplication of the work – but this is not considered bad because areas like nutrition and health education do require a lot of combined effort. This could be called convergence - since the effects are additive in the community. So what is the problem?

The first problem is that each of their targets is not being met. Complete immunisation averages at an all-India level stands at below 50%, and so the gap persists. The Anganwadi reaches only one third of all children and then too only a small part of the requisite services are provided. The ASHA's outreach and effectiveness on common childhood illness are very poor. Thus the overlap does not seem to be achieving much and seems to be random rather than consciously planned.

Coordinated Action: *Where actions add up*

Instead of each of these three peripheral workers functioning as if they are three separate compartments, it would be useful if they helped each other to achieve their targets. The immediate response is that they already have enough work of their own. But since their work is so inter-related it can be added up.

The Health Department could seek the help of the Anganwadi worker in the immunisation session. Or the Anganwadi worker seeks the help of the ANM in malnutrition management. This should be adequate to achieve better results. However this faces some problems in the way it gets practiced.

The Health Department wants the coordination of the Anganwadi to achieve immunisation. The Women and Child Department (WCD) agrees to let the Anganwadi be used as location for immunisation, but is not accountable for achieving immunisation coverage and therefore is not monitoring this either. Since WCD is monitoring child malnutrition, the health department stops feeling that reduction of malnutrition is their role. And therefore it does not monitor its employee's contribution to the WCD effort. It may even discourage them from participating, silently stating that they may attend to malnutrition only after their own work is done. However the ANM does visit the Anganwadi center and therefore is potentially available for some level of medical advice and can refer the child to the primary health center. Though such interactions can be called coordination – and their respective compartmentalised actions add up – in reality, they do not synergise.

Coordination for Health Infrastructure

In some of the backward blocks there is no electricity or intermittent electricity. Convergence with the *State Electricity Board* is essential to ensure the cold chain, and lighting at the PHC. The roads leading to the PHC should be motorable especially in the light of the fact that a bleeding pregnant or post-natal women should be able to reach the PHC in two hours. Ensuring that the PHCs are well connected by roads to the hamlets that are served is a *PWD Road's* function. Ensuring that there is a regular water supply and working sanitation system in all infrastructures – the Sub-centre, PHC and the CHC – is a *Rural Development Department* function and a *PHED (Public Health Engineering Department)* function.

Building and maintaining the facility is a *PWD Buildings or Rural Engineering Services (RES)* function. Acquiring the land for building it needs coordination with *Revenue Department* and the *Panchayats*. Ensuring that all PHCs are e-connected is a *Telecom Department* function.

When we talk of convergence we usually do not refer to such coordination, but nevertheless much of the effort of the health authorities and much of the time of the bodies like the *District Health Society* and the *Hospital Development Committees* goes precisely to this effort. The role of a superior authority enforcing this coordination is almost mandatory to make such coordination effective. Usually it is the *District Commissioner*.

There is another major form of coordination – when different departments have to cooperate and contribute for the health sector to be optimally functional. This is particularly true for infrastructure – roads, buildings, electricity, water supply, waste disposal etc. – where the concerned departments need to cooperate.

Synergistic Action: *Where the total is more than the sum of its parts*

Here the goal is defined, and then the various players coordinate and contribute different elements to it, so that the goal is attained. Thus, in a programme with the goal of eliminating malnutrition, the role of different players is defined such that each contributes different components to the same goal.

The ANM, for example, would be able to counsel every family on nutrition when she meets them and this should be ensured. However she meets them only during immunisation or if there is a pregnant woman there. Otherwise she seldom has

the occasion to make a field visit. However since she is more trained on illness care, the Anganwadi worker should ensure that every child with Grade III or Grade IV malnutrition, and if possible every child with Grade II malnutrition should be shown to her.

Wherever possible it is desirable that the AWW also refers every Grade III and IV malnutrition to the medical doctor in the primary health center. The Anganwadi worker also facilitates her center acting as the venue for the immunisation session and on that day arranges a meeting of mothers as well as extends an invitation to all those who need the ANM's services. To be able to do this effectively she also keeps a track of the young children and their status of immunisation and health.

Convergence must take place at the level of policy making, planning, framing of programmes and schemes and their implementation at all levels. Absence of such convergence at higher levels leads to 'verticalisation' in various health programmes, which in turn leads to wastage of money, time and effort as well as un purposeful overlaps.



Example : Health workers' training is planned separately for IMNCI for all ANMs and for Medical Officers in a given district. Simultaneously training for home based neonatal care is planned for ASHAs and for ANMs in the same district. Further, training in infant and young child feeding is planned separately for this cadre. All three training programmes relate to care of the young child though the emphasis on each programme is different. As a result different messages are given out in each to the same field worker and different messages to different levels of workers. There is little doubt therefore that outcomes will suffer. Needless to say, the worker would have to attend three different trainings on related issues, get three different modules and get confused, while the expense would be greater in terms of loss of hours of work and actual costs of training. This sort of problem occurs because there are separate sources of funds for each training programme and a different officer in charge or different agency supporting the programmes at national and state levels and each has a separate mandate.

Similarly, in policy, if a strategy is to be made for addressing the issues of adolescence then the Departments of Health, Women and Child Development, Youth, and Education would need a joint strategy. Each Department may have a scheme and spend its funds allocation, but it should be drafted while acknowledging the presence of other departmental programmes and building synergy with these schemes. This should be built into the process of developing the scheme itself, so that minimum unnecessary overlap and maximum synergy is achieved with the work of other Departments.

Thus, thinking 'broadly', 'intersectorally' or "convergently" is an attitude and a way of thinking that needs to be applied at all levels to a basic necessity such as health which is so strongly related to other social and economic issues. The government is also taking note of this seriously and convergence is thus a key strategy of the NHRM.

We look below at the various key social determinants, their indicators and the synergies needed between different departments to achieve a situation of 'health'.

SOCIAL DETERMINANTS AND CONVERGENCE

Convergence must take place at the level of policy making, planning, framing of programmes and schemes and their implementation at all levels. Absence of such convergence at higher levels leads to 'verticalisation' in various health programmes, which in turn leads to wastage of money, time and effort as well as unpurposeful overlaps.

ELIMINATION OF HUNGER AND THE PROVISION OF FOOD SECURITY

This is perhaps the single most important social determinant of health. The production of food is largely in the area of agricultural development and of course areas like fisheries, and forest management for special groups like fisher folk and forest-based tribals respectively. Rural development is another department which is

concerned in a major way as it deals with the creation of rural livelihoods. However given the nature of economic development with high levels of inequity, a large section would always find the cost of food beyond reach. This is today the most important cause of hunger and thereby the most important cause of ill health. In a modern society which has such enormous wealth compared to earlier times, it is completely unacceptable that anyone should be hungry. Hence the government has had to work out ways of providing food to the hungry through a number of, what are known as, food security programmes. We will discuss these food security schemes in Lesson 3. We will not however be discussing the synergies with departments concerned with the production of food and creation of livelihoods, not because they are not important, but because the district plan as is currently defined is largely confined to the delivery of public services related to basic needs. The rest needs to be discussed along with economic planning, which is beyond the scope of this book.

In today's modern society which has such enormous wealth compared to earlier times, it is completely unacceptable that anyone should be hungry.

Relevant Millennium Development Goal

Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

Indicators of this Social Determinant:

1. Prevalence of underweight children under five years of age (UNICEF-WHO)
2. Proportion of population below minimum level of dietary energy consumption (FAO)
3. Percentage of adults who have a BMI below 18.5. disaggregated for gender
4. Percentage of low birth weight babies

N.B. The relevant MDG is stated. The first two indicators are Millennium Development Goals Indicators. Since we do not commonly use the second indicator, this could be substituted by the more familiar third indicator related to BMI. All these three indicators need to be disaggregated for gender and different types of vulnerability or marginalisation.

Convergence for achieving improvement in this social determinant requires charting out the coordinated contribution of different sections to achieve this goal as indicated by improvements in the above indicators. More details of the approach to achieve this are to be found in Lesson 3.

PROVISION OF SAFE DRINKING WATER AND SANITATION

At the state level the Public Health Engineering Department (PHED) is in charge of ensuring that population has adequate access to safe drinking water and sanitation. It is also in charge of environmental sanitation-sewage and drainage systems in urban areas and appropriate disposal of solid and liquid wastes in rural



areas. In rural areas it is the Department of Panchayats and Rural Development that looks after this work – as much of these tasks in most states are devolved completely to Panchayats.

The Accelerated Supply of Safe Drinking Water, the Central Rural Sanitation Programme and the Total Sanitation Campaign are some of the major schemes organised by the Ministry of Rural Development.

The trend has been that the PHED and Rural Development focus is limited to the availability of water – which of course is the priority – and secondarily only to the safety of drinking water. In Sanitation the trend in rural sanitation has been limited to the construction of toilets, and all other aspects have received low priority. Thus liquid waste disposal and management of water storage sites – key to the control of vector borne disease – seldom enter consideration at all and become the task of the health system, though inherently it is an engineering problem and under the PHED/Rural Development control.

If the key indicator is the reduction of water borne and water related disease:

- a) We need a way of jointly measuring the incidence of water related disease, especially diarrhoea, hepatitis and typhoid, and, when outbreaks of such disease occur, trying to trace its source.
- b) We need a way of regularly testing for water quality and testing.
- c) Co-relating the two above we need to be able to determine the contribution of different players to the reduction of water borne disease. Though ideally management of safe water should be based on regular water testing for quality, the problems of water testing are such that we may often miss it. This is partly because reliable sensitive methods are difficult to access and because the common low cost methods have poor reliability. Also contamination is often intermittent. Like in piped water systems the negative suction combining with a cesspool leak from the outside or an imperfect joint is not something that would happen daily (though it could also). Or well water could be getting contaminated intermittently and getting disinfected also irregularly. Thus in addition to the water quality testing, every reported outbreak becomes an excellent opportunity for detecting deficiencies in water quality testing. But this requires in turn, systematic investigation of every outbreak.
- d) In the chain of actions needed to provide safe water different players have different roles and there needs to be both accountability of the system as a whole, and a system of accountability of its parts. Thus the creation of the water source, the maintenance of water source, the transport of water from water source to the house, the storage of water in the house, the use of water in the house, the safe disposal of excess water, the testing of water to ensure quality, the investigation of outbreaks is such a chain.

**Table 1.1 : Model Plan for Convergence: The Synergies Needed for
Achieving a Development Indicator:
Example : Access to safe drinking water**

	Activity Chain	Issues	Accountability Chain
1.	Creation of the water source	Installation of bore-well with handpump is needed.	PHED department
2.	Maintenance of water source	Repairs if there are breakdowns, maintaining cement collar, regular chlorination, drainage of excess water.	Local Water and Sanitation Committee, committee supported by panchayat and the PHED and rural development dept above this.
3.	Utilisation of the water source	Many families may still be using unprotected water because they a. are excluded from it for social reasons or are b. not finding the taste of water agreeable(saline, iron etc.) or are just preferring to use the traditional pond/well.	Village water and sanitation committee and Panchayat and the health deptt. supervising this.
4.	Transport of water from water source to the house	In piped water systems this becomes the major source of leak. In a borewell with handpump context the main issue is hygiene in water handling.	In piped systems – same as above. For this context same as below.
5.	Storage of water in the house	Domestic hygiene, keeping it covered, water handling with care, the use of handled spoon to take out water, disinfection with chlorine etc.	Health department and the WCD department and the PHED dept – through BCC activity and social marketing.
6.	Use of water in the house	Personal hygiene – hand washing, boiling drinking water.	Health department and the WCD department and the PHED dept – through BCC activity and social marketing.
7.	Safe disposal of excess water	Draining it into soak pit or kitchen garden.	Rural Development Department through Panchayats and the village committee
8.	Regular water quality testing	Fixed periodicity –test done and report filed	Panchayat and the Health Department
9.	Investigation of outbreaks	Need to trace source of outbreak. Need not be the bore-well – could be a hotel sanitation problem or a transient use of other source	Health Department and the PHED Department or should we entrust it to a third party?



We note that the above chain of activities and accountability would change with choice of technology and indeed this should inform the choice of technology.

Also for each component of the spectrum of water and sanitation there would be a different set of activities in the chain. The above list was for provision of safe water. One could write up a similar list for vector control, for disposal of solid waste, for disposal of liquid waste, for school and Anganwadi sanitation, for hotel sanitation, for sanitation during melas and festivals and in camps etc.

Relevant MDG

Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.

Indicators

30. Proportion of population with sustainable access to an improved water source, urban and rural (UNICEF-WHO)

31. Proportion of population with access to improved sanitation, urban and rural (UNICEF-WHO)

Additional Process Indicators

Periodic water quality testing report, and
Outbreaks of water borne and water related disease

Convergence for achieving improvement in this social determinant requires charting out the coordinated contribution of different sections to achieving this goal. More details of the processes needed to achieve these outcomes are discussed further in Lesson 2 of this book.

OCCUPATIONAL HEALTH

One of the areas where convergence is most required is occupational health. A considerable number of illnesses relate to occupations. Every occupation has its health hazards and cautions but some occupations are particularly dangerous.

The common examples are injuries in industry or from poorly designed threshing machines in agriculture, or lung disorders in those working in quarries or mines or in dusty situations.

The central issue in occupation health is that all diseases are projected as if they occur due to the victim's carelessness or failure to take care and a relationship with the working conditions is altogether denied.

However almost invariably the causes relate to the choice of technology, the design of technology and the organisation of work where profit concerns overrule concerns of health of the worker.

The Departments of Labour and the concerned Industrial or Mines Departments have responsibility in this area – not only for prevention but also for health care provision. However since the majority of the workforce is unorganised and many of them are in very poor position to articulate let alone bargain for

better working conditions – the Health Department may be their only point of encounter with the public services and it would be the responsibility of this sector to respond to it. A classical example is rag-pickers or sanitation workers, who are maximally prone to illness but have little recourse to either preventive measures or even treatment facilities. Working amongst such sections is a challenge that the system has in most places not begun to address.

At this point of time even the PHRN is not equipped to bring this into the district planning. Any attempt to monitor or impact occupational health requires at a minimum assessment of indicators like death rates in the working population age group and occupation related illness statistics.

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ENVIRONMENTAL HEALTH

This usually refers to the maintenance of air quality and water quality and biotic environment such that health is promoted and illness is reduced.

Water quality and the safe disposal of faeces and waste water is one of the most important components. This has been largely discussed along with the provision of safe water and sanitation.

However the other problem of pollution of water by industrial and agricultural chemicals needs to be discussed. These are issues of technology choice and technology design and industrial safety monitoring and regulation. Again an alert health system with an adequate disease surveillance system in place may be the first to notice a break down in industrial safety and call attention to it.

Maintenance of air quality is closely related to industrial air pollution and domestic smoke management. Again the critical inputs are industrial design and the mechanisms of regulation to enforce it. The better design of cooking stoves would help considerably in rural areas and should be almost a mandatory part of all rural health programmes. A substantial reduction of respiratory problems is possible from such a move. Yet convergence on this has yet to arrive.

Accidents such as the Bhopal disaster of 1984 bring the lack of monitoring, protection and redressal mechanisms related to environmental health to the forefront. Regulatory mechanisms need to be made more stringent to ensure that industries comply with health safety requirements.

Social environments are also important. A situation of conflict for example almost invariably leads to a



complete breakdown of all health measures and an abrupt worsening of all health indicators. Peace is one of the single most important requirements of health and its breakdown the harbinger of considerable excess mortality and morbidity.

The structure of the organisation of the community also relates to health. Thus the urban slum is a major site of disease and deaths. Urban IMR for example has been stagnant for almost 20 years and is now increasing. The urban slum environment is characterised by the so-called illegal existence of a large number of its inhabitants and therefore an almost complete denial of most public health services. Even basic sanitation and safe water services are not available. And health care would remain inaccessible to most in a context where there is such an oversupply of health practitioners. Similarly fragmentation of societies, both urban and rural on caste and communal or ethnic lines, also takes a heavy toll on health status.

Natural disasters, like tsunamis, floods, earthquakes or man-made disasters like war and conflicts also create unique environments that are major breeding grounds for ill health. The immediate disruption of the physical and biotic environment lead to a rapid spread of communicable disease in addition to the injuries and loss of life caused by the disaster itself. Further the constrained environments of survivor / refugee camps create specific challenges for convergence between all the departments mentioned above, specially those related to food, water and sanitation, child care and health care and welfare departments who need to reach out to orphaned children, to households that are rendered destitute, to handicapped survivors and so on. The management of disaster and disaster preparedness are large areas of learning in themselves.

A situation of conflict almost invariably leads to a complete breakdown of all health measures and an abrupt worsening of all health indicators. Peace is one of the single most important requirements of health and its breakdown the harbinger of considerable excess mortality and morbidity.

BIOTIC ENVIRONMENT

The pattern of flora and fauna have also a close relationship to disease. The most obvious is the problems of insect pests and vermins as direct vectors of disease and by their actions on other social determinants like rats on the food supply. Another well known example is the impact of deforestation. Deforestation can lead to decline in water availability and loss of food supply for forest dwellers.

In this context it is important to remember that all developmental activity would impact on the environment – and one of the areas where such impact would be most sensitive is the biotic environment. Thus for

example any construction activity – be it roads or canals or buildings creates many new possibilities for pools of stagnant water being created after the rains. It is mandatory to ensure that engineering design and supervision prevents this and that all such work is assessed on site by malaria inspectors and certified. This system of doing so exists on paper but has broken down in practice.

Some of these issues will be discussed later in the context of non communicable disease and of urban health care. There is a need to take in environment health into the district plan - the physical environment, the biotic environment and the social environment. The other is to get an Environmental Impact Assessment (EIA) of all developmental activity done as a routine and ensure that health planning anticipates and tries to prevent, minimise or manage its adverse health impacts. This is needed for existing and new developmental activity. This is already a mandatory requirement in India but its implementation is very poor. Internationally, most developed nations are characterised by a strict implementation of such laws. But even there it is invariably very active civil society groups that have initiated and have forced the implementation of such laws. Their constant vigil safeguards against violations, for such is the nature of the economic power of corporate bodies that without such vigilance and enforcement few corporate structures would ever heed these laws.

Relevant MDG

Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources

The indicators of these largely relate to limitation of human activity that impacts adversely on the environment. Morbidity and Mortality impact of this are available but not at the level where it can inform district planning. Convergence for achieving improvement in this social determinant requires charting out the coordinated contribution of different sections- and the description of this is beyond the scope of this current book.

EDUCATION AND HEALTH EDUCATION

One of the most powerful social determinants of health status and of utilisation of health services is education. Education acts in many ways; we list below the main processes :

a. By influencing perception of illness and self and society

Infant mortality rate has been shown to decrease with increasing number of years of schooling – after adjusting for other socio-economic factors. How does it help? Increased access to information is no doubt one reason. But there is evidence that the changes in health seeking behavior relate even more to basic changes in perception of the self and of illness. Whereas illness and disease is accepted as natural and something to be accepted – the perception of illness and disease as something to be contested – to be acted upon – to be susceptible to change grows with education. Of course even the



most educated cannot escape illness or death and there is much to be said for retaining some element of being able to accept these as natural without romanticising the traditional and after adjusting for the modern. Even in this process of learning to cope with illness and mortality, education, especially good grounding in art and literature helps.

b. Through Physical education and Sports

Education includes physical education and sports. This is one of the most important areas of promotive health care. Promotive health is different from preventive and curative care. There are nations where sports is managed by the Department of Health. All schools necessarily have physical education instructors and sports sessions. Unfortunately in the increasingly competitive schooling atmosphere, this learning area gets edged out. Though important at all ages there is a special importance attached to this in adolescence.

c. Through Health Education

School education includes health education. In the ten years of schooling every single child must acquire an adequate knowledge of health issues for ensuring ability to prevent diseases, promote good health, and even take care of a number of very common and self limiting illness capable of home remedy management. This should be almost the level of knowledge -except in curative care -of what any community health worker would provide. The children can be encouraged to disseminate such information in the community and in their families.

d. By Learning Hygiene and Safe health Practices

Habits like toilet use and hand washing before eating, dental hygiene, general body hygiene, appropriate waste disposal are acquired in the school going age and need a combination of promotion from both the home and the family and the community. Of these the school is the site where public policy can best intervene to secure the desired changes. Increasingly in adolescent age groups learning about safe sex and teaching the adolescents the skills to be able to negotiate safe sex in future is becoming an urgent issue. Empowering young people to ensure that sex is only at their own terms, is responsible and that it is as part of healthy living is also a process that begins at schools.

e. Through "School Health" Programmes

The term school health is usually limited to areas of health care provided to school children through the institution of the school. This is usually confined to annual school health check-ups and refractive errors correction and sometimes some basic medication for some common problems like de-worming or iron supplements or minor injuries. There is considerable scope to enhance this. This is discussed further in Lesson 5.

f. Through Mid Day School Meal Programme

This substantially reduces hunger in the school going age group, and improves school attendance and school performance. It is thus equally a measure of improving health status, or providing food security and of improving school performance. This is discussed further in Lesson 5.

g. Through Pre-school education

All the above apply equally to the pre-school education scenario with adjustment for the level of development the child has reached at that stage. This is discussed further in Lesson 4.

h. Schooling and age of marriage

The relationship between access to secondary school for girls and being able to delay the age of her marriage is well known as is the relationship of early marriage to maternal morbidity and mortality and child morbidity and mortality.

i. Through Adolescent Health Programmes

Adolescent health is an important part of general adolescent and youth programming. The Youth Department along with NYK, ZSS plan for engaging youth in sports, vocational training, education, literacy, social initiatives. It is important to converge with them to ensure that health is an integral part of their programme. Keeping in mind the epidemic of HIV/ AIDS, epidemic of tobacco consumption and other addictive substances, the rising road accidents and suicides in this age group – high school and higher secondary and collegiate education must today mandatorily include comprehensive programmes of adolescent health. This is discussed further in Book 6, Lesson 7.

The contribution of education can be easily seen if we disaggregate any health indicator for level of education. Planning health strategies also depends crucially on health indicators. For example if the women in the household have completed 8th class education we can with almost certainly conclude from earlier studies and data that:

- a) there would be a much easier acceptance of messages related to child care practices and safe pregnancy practices
- b) there would be a readiness to accept domestic toilets.
- c) There would be a readiness to accept a small family norm and a readiness to use contraceptive methods. (Spacing is also more – but not as complete a change.)
- d) There would be less chance of marriage below the age of 18.

Ensuring universal access to elementary education for all girls and then to achieve complete 12 years of schooling for all must be seen as a district health priority!

In such contexts the focus would be more on strengthening supply side interventions – and much less investment in BCC that merely



conveys awareness. It also follows that ensuring universal access to elementary education for all girls and then to achieve complete 12 years of schooling for all must be seen as a district health priority. Building in synergies in preventing drop outs and improve attainment of learning in schools is one area in which coordination is needed. However in all other areas active synergy between health department and the school education system is needed to achieve better health for the child population.

Relevant MDG

Target 3. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling

Target 4. Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.

Indicators for this relate to school enrolment, retention (the percentage of children who complete schooling) and attainment (the percentage of children who complete schooling who show adequate learning).

This is a largely education sector intervention where the health sector provides critical assistance. There is enough evidence to show that achieving these targets by themselves impacts on almost all health status parameters. This is discussed in further detail in Lesson 4 of this book.

CONVERGENCE TO ADDRESS SOCIAL DISCRIMINATION

If effective action on social determinants is one reason for convergence, the other major reason for convergence is the need to address social discrimination and social exclusion.

There are many sections of the population who face active discrimination and are vulnerable due to past deprivation. To correct this situation and put an end to discrimination in all its forms the government has specific programmes and departments to address the special needs of each of these sections and organise affirmative action to redress this inequality.

One of the major forms that discrimination takes is exclusion or reduced access to basic public services. Therefore the social determinants of health lead to poorer health status in these sections and access to health care is also poorer. Synergy in working of the health sector with these departments is essential to improve the situation of inequity. These departments are also specifically charged with reducing health inequity and with ensuring health care access to the marginalised sections.

Discrimination takes many forms; consider these examples:

Active and Overt Discrimination

Example:

- A dalit or adivasi child not being allowed to attend the school.
- The ANM refuses to take immunisation services to a dalit village.

Active but less Apparent Discrimination :

- Rude behaviour, belittling a group of people. The child is told when he gets poor marks that he is not fit to learn mathematics – only to graze cows. Leads to higher child drop outs in this section.
- The medical officer repeatedly scolds the dalit family when they come to the health center for not taking the drugs regularly, though the real reasons are that they cannot afford to come. They feel insulted and avoid going, which, the doctor feels, justifies his perception that they are too ignorant and do not care.

Passive Discrimination :

- The SC child is unable to learn because of lack of parental support – as the parents are illiterate. There is special coaching needed, but neither it is available nor affordable. So the child drops out.
- The SC child cannot be brought for immunisation as the parents are away at work.
- The women attending the primary health center cannot have an abdominal examination because there is neither a nurse available for attending nor privacy for the examination. In effect therefore women get denied a full medical examination.

ROLE OF PUBLIC POLICY

There are specific departments entrusted with this role. Each of them addresses one or more sections of population that face some form of discrimination. Such discrimination can be additive. For example, gender discrimination and caste discrimination would add to the problems of the physically challenged, if the affected person is a woman from a backward caste.

Department of Women and Child :

In charge of programmes for empowerment of women and for provision of child care- especially early childhood care. The major schemes of immediate relevance are the self help groups programme and the ICDS.



Tribal Welfare Department :

The welfare of scheduled tribes. In many tribal areas the health programmes are under the tribal department or they have separate tribal programmes of their own or they have programmes in partnership with the Health Department. In many places Forest Departments run health programmes or supervise them in what are called forest villages. These villages are not under the revenue divisions of the district administration, but under the Forest Department and access to basic services may be particularly poor in many of these.

Scheduled Caste Welfare :

There is a scheduled caste component in most schemes for which funds are earmarked to be spent on this section as an affirmative action to correct past deprivation. Yet as can be shown by statistics, this has achieved its objectives minimally. But coordination with this department must certainly remain a priority.

Department of Rural Development :

In the area of food security and indeed in all areas it is required to pay special attention to economically weaker sections. One of the most important tasks it supervises is the identification and declaration of families below the poverty line- a task primarily entrusted to the Panchayats.

Since the BPL card (the card identifying the Below Poverty Line families) is linked to so many special entitlements, it itself is subject to pressures of class and power. However it remains the main instrument of targeting benefits to weaker sections. For example the card allows them food grains at a lower price from the ration shops – free if they have Antyodaya cards. It allows them exemption from user fees in public health facilities. It allows them access to demand side financing like the Janani Suraksha Yojana programme (BPL cardholding women get a monetary award for home delivery and for institutional delivery in a private clinic. For institutional delivery at a government facility all women get the cash incentive). It is therefore of great interest to the Health Department to ensure that the cards are given to correctly selected beneficiaries

Social Welfare Department :

This is the department meant specifically for looking after the requirements of sections identified as marginalised. Often this works as part of or closely with the Department of Women and Child Development. The Social Welfare Department has programmes for the welfare of children, women, elderly, beggars, the physically challenged, the destitute, probationers and prisoners, licensing of women's and children's institutions and provision, management and maintenance of statutory and non statutory institutions/ services for the welfare of the people. These social legislations include Juvenile Justice Act, 2000, Bombay Prevention of Begging Act, 1959 , Probation of Offenders' Act, 1958, Women's and Children's Institutions (Licensing) Act, 1956, Immoral Traffic (Prevention) Act, 1956 etc.

Urban Development Programme :

The urban local bodies and the Urban Development Department are responsible for the urban health programme. In some states the health programme is completely given over to the urban local bodies and the department- including all the health facilities and technical support for the same like in West Bengal.

In others the health programmes are completely managed by the Department of Health and the urban local bodies are only limited to sanitation and a few dispensaries like in Madhya Pradesh. In other states like in Andhra Pradesh the urban health programmes are contracted out by the Health Department to the NGOs. And there are many other situations in between.

Urban health programmes quite correctly focus on slums, the most vulnerable section. But beyond slums as a definition of vulnerability, there are many other groups - the migrants, the homeless, street children, children without adult protection, and so on.

(There are many sections who are marginalised – but who are currently not under the responsibility of any department. For example there are migrants. Or there are women headed households in the rural areas. In urban areas and in rural areas there are single women outside family situations who are also vulnerable.)

Department of Fisheries :

In most coastal states there are large concentrations of fisher folk who suffer from poor health status and poor access to basic services. Coordination with the department of fisheries which is responsible for their welfare becomes important.

INDICATORS

For all of the above the rule is the same: any of the indicators of the health services, health outcomes or of other social determinants but disaggregated for that special group and compared with the average of the rest.

CONSTRAINTS ON CONVERGENCE

Why does convergence not happen? What are the constraints on convergence?

One simple reason is that much of our planning is top down. Each activity is decided above and driven by a top down chain of command. Thus each activity is boxed into a separate compartment and there may be little knowledge transfer and coordination between one department and another in their planning. Indeed their budgets are separate, and their officers are senior individuals with their own priorities and the power to push them through; therefore there is little scope for joint planning. Of course by getting an



even more senior officer to preside over a joint committee considerable coordination can be achieved – but not really synergy.

Another reason is the vested interests of privileged groups and their relationships. Around each Department and its activity is a set of powerful individuals and their interconnections. These interconnections are also with powerful groups in the village. So despite a well made plan, during implementation these structures of power would distort the programme to their convenience – leading invariably to persistent exclusion and weak progress on social determinants.

The third is a technical reason. Convergent planning is necessarily decentralised planning. But convergent planning for synergy between different sectors and between different sections is complex. And the necessary skills for such planning are difficult to obtain at decentralised levels. Decentralised planning would still focus on a limited set of objectives for it is simpler for the mind to grasp and act on one or two things clearly than a web of interconnections. Also fixing accountability is easier – if we know who is accountable for what action. If we say (from our earlier example) that the ANM and the AWW and the ASHA and the panchayat is responsible for elimination of malnutrition then the fear is that no one may be held accountable. Getting around such constraints has been difficult and few have succeeded.

Looking at various experiences of the past a few general observations may be made on the mechanisms of building synergy or convergence as different from mere coordination.

MECHANISMS OF CONVERGENCE

Institutional Frameworks

The three most important sites of convergence are:

- a) The Gram Panchayat-level (not the village – unless it is contiguous with the Panchayat).
- b) The Block-level Panchayat.
- c) The District-level Panchayat and the district administration.

- The most obvious reason is that these parallels with the institutions of local governance- though it would still be a problem to bring the urban local bodies in.
- The other reason is that all the programmes of these departments have activities defined by these levels.
- The third is that all these three levels have administrative infrastructure – buildings , office equipments, discussion rooms, staff which are part of having an institutional capacity.

In each of these levels however we may require additional institutional mechanism. For example at the Gram

Panchayat-level, there is a proposal for village and sanitation committees. Currently the sanitation committee at this level is more active than the health committee simply because its aims are clearer and since the programme implementation involves the panchayats. Expanding this to function for health also is critical.

In some states this committee is defined as a sub committee of the elected members of the panchayat where only elected members participate. This becomes too restrictive. The aim should be the creation of committees where different groups can get represented and then the committee can advise the elected Panchayat committee which would have to approve its decisions.

At the block-level, a block health committee where the Panchayats and administration are both represented and there is representation for weaker sections and for civil society is required.

At the district-level a district health society which has all the above features exists, but often is poorly functional.

The institutional framework requires capacity building. Capacity building would have two components- one is training key functionaries so that they have the skills and the second is to organise technical assistance at all these levels such that what skills cannot be built is provided for by such agencies.

Activity Framework

The heart of the approach is to be able to plan locally and integrate all the components in the plan, fixing accountability of different sections. Thus the district and village health plans should be examined to see whether the plans:

- a) address social determinants adequately
- b) address social discrimination and social exclusion adequately
- c) include a situational analysis that is able to show the situation with regard to social determinants in different sections which are socially excluded or need positive affirmative action.
- d) identify the different outcomes which require coordinated action or synergies between different sectors and state clearly what contribution each would make. This may initially require considerable technical inputs to draw up.

After the planning process the implementation, monitoring and evaluation process should also reflect these concerns.



Accountability Framework

Convergence also requires an accountability framework. This should be based on indicators which show

- a) the health outcomes achieved in that village/block/district,
- b) the process outcomes (service delivery outcomes) needed to ensure that all sectors are contributing optimally and be able to identify and fix responsibility for the weakness at the appropriate level.

Such an accountability framework is needed at the village-level, at the block-level and at the district-level. An example of such an accountability framework is given for the outcomes of a reduction in water borne disease and access to safe drinking water.

IN CONCLUSION

Of these three levels for reasons of capacity and the context, the most important starting point would be the district health plan. The district health plan must be able to spell out actions on social determinants and social exclusions to achieve the health outcomes desired and be able to illustrate the synergies needed to achieve these outcomes.

In the successive Lessons we shall look at four major social determinants of health care – universal access to safe water and sanitation, the elimination of hunger and the provision of food security, universal access to comprehensive early childhood care and universal access to elementary education and examine how they can be incorporated into the district plan.

I. Review Questions:

1. What are the reasons convergence is needed?
2. What are key social determinants of health care?
3. What is the link between convergence and social exclusion?
4. Why does not convergence occur readily between departments?
5. Which are the organisations where convergence can be planned for?

II. Application Questions:

1. Roti, kapda aur makaan: We have discussed roti- what about kapda aur makaan – how are clothing and shelter important social determinants- which department addresses this issue.
2. When government is providing free services to all why raise the issue of treating unequals, unequally. Will it not merely fuel resentments in other sections?

III. Project Work:

1. Appraise the district plan for its section on hunger and starvation or for any other social determinant that it has covered. Similar to table 1.1. construct a table of synergies to show how various sections would contribute to the achievement of a reduction in malnutrition.
2. Check to see whether any of the departments mentioned has such a district plan for its department at the district level. If there is get a copy and write up a small appraisal of the plan. (In particular the total sanitation campaign also envisages district level planning). See how such plans can be integrated with the district health plan.



Lesson TWO

Water and Sanitation in the District Plan



In this lesson we shall discuss:

- How planning for water and sanitation contributes to health outcomes
 - Various components of planning for better water and sanitation services
 - Current Government Programmes for drinking water and constraints being faced
 - Current Government Schemes for sanitation and constraints being faced
 - Challenges in District Level Planning
- 

WATER AND SANITATION AS PART OF HEALTH OUTCOMES

WATER-BORNE DISEASES

The vast majority of communicable diseases are water-borne. These include:

- a) Diarrhoea including cholera
- b) Bacillary and Amebic Dysentery
- c) Intestinal worms (Helminthiasis)
- d) Hepatitis (especially Hepatitis A and E)
- e) Typhoid
- f) Poliomyelitis

WATER-RELATED DISEASES

There are other diseases that relate to lack of water – like scabies is known to be common where water for regular bathing and washing up is scarce.

Or vector borne diseases are common where there are stagnant pools of water which lead to breeding of mosquitoes and then spread of vector borne diseases. Important amongst diseases would be:

- a) Malaria
- b) Filariasis
- c) Japanese Encephalitis
- d) Kala-azar

BURDEN OF WATER-BORNE DISEASES

It is not only the number of diseases which give this importance. The disease load of these diseases is enormous.

For example, diarrhoea alone accounts for an estimated 450,000 deaths in children below the age of five every year in India. In the world as a whole, 1.8 million children die every year of diarrhoea.

Deaths are only a part of the suffering. On an average every child has diarrhoea about three to seven times a year. That is an estimated 1.2 to 2.8 billion episodes of childhood diarrhoea. Even if each episode

Nandigram II Block achieves Full Sanitation Coverage

The year 2002 witnessed historical achievement in the Rural Sanitation Sector when Nandigram II block of East Medinipur district of West Bengal achieved full sanitation coverage. All the rural households (18,003) have got sanitation facilities and open defecation has stopped in all 7 gram panchayats of the block. The success in Nandigram II has been due to sincere involvement of the Ramkrishna Mission Lok Shiksha Parishad and its cluster NGOs, active panchayati raj system in Medinipur district and the support given by district administration and UNICEF. The success of Nandigram II has motivated many blocks in West Bengal and other parts of the country to attain full sanitation coverage.

Extracted from EPW Aug 26th, 2006, 3680, Nandini Nayak and Naresh C. Saxena.



cost only Rs. 100 in terms of financial costs of drugs, care and loss of wages for parents etc it would work out to Rs. 120 billion on the management of diarrhoea alone. This is a huge drain on the income of the poor and a huge loss of productivity for the nation.

And this is only for diarrhoea. If we factor in for other diseases the amount multiplies enormously. For example hookworm disease, directly related to poor sanitation, is the major cause of anemia. We know that more than half of all women and children and about 20% of all men are anemic and along with dietary deficiency hook worm disease is the single most important cause of anemia.

Hepatitis and typhoid also cause huge morbidity loads and significant mortality loads.

Though each of these diseases is susceptible to treatment, the costs to society in terms of loss of productivity and expenditure on public provision of care and the financial loss to families remains massive. In contrast the cost of provision of safe drinking water and sanitation to all is much less.

COMPREHENSIVE WATER AND SANITATION PLANNING

The components of comprehensive water and sanitation programmes that would impact significantly on health are.

1. Ensuring an adequate access to water for domestic purposes- drinking, washing, bathing.
2. Ensuring the safety of water (minimum quality) used for domestic purposes.
3. Ensuring personal and domestic hygiene necessary to prevent spread of water borne disease.
4. Ensuring safe disposal of excreta (the use of sanitary latrines: household latrines or community latrines).
5. Ensuring safe disposal of waste water.
6. Ensuring safe solid waste disposal.
7. Ensuring adequate drainage.
8. Specific measures against breeding sites for insects – not covered by above measures. (eg mosquito breeding in overhead tanks or wells etc.)
9. Health education/ behaviour change communication to ensure the adoption of hygiene, safe health practices and to contribute to programme design.
10. Water quality surveillance and the surveillance for water borne disease.

We also note that a disease like polio which takes over a 1000 crores annually to wipe out through mass immunisation, could have also been significantly reduced by improved water and sanitation measures.

In each of these above areas, a local plan is needed to:

- a) make an appropriate technology choice,
- b) provide support by health education work to promote the appropriate technology chosen and to promote changes in health related practices needed for utilisation,
- c) estimate human resources required,

- d) estimate financial resources/access to materials required, and
- e) evolve an appropriate strategy/programme design with respect to all the above and also with respect to available government schemes.

UNDERSTANDING THE STRATEGIES AND THE CONSTRAINTS

PROVISION OF ADEQUATE WATER FOR DOMESTIC USE

Main strategy

This is the use of bore-wells with handpumps or energised to lift water into overhead tanks and then supply piped water through stand-posts.

Norm

40 litres per capita per day (lpcd) for humans. In addition, provision should be allowed at 30 lpcd for animals in hot and cold desert/ecosystems. With normal output of 12 litres per minute, one handpump or standpost is estimated for every 250 persons in a large village. In case of an independent habitation/hamlet/Wadi/Tola/Majra/Mohra etc, a rural habitation with a permanently settled population of 20 households or 100 persons, whichever is more, may be taken as the unit for coverage with funds under the Accelerated Rural Water Supply Programme (ARWSP). However, the State Government could cover any habitation regardless of its size / population / number of households with funds under the Minimum Needs Programme. DDP areas and SC/ST habitations with less than 100 persons can, however, be covered under the ARWSP.

Strengths of the strategy

1. Borewell water is usually safe from fecal contamination and therefore it is a simple message to use only such water.
2. In most areas ground water can be found and sinking a borewell in each habitation has been the most important route to achieving adequacy in water supply.
3. The Mark-III handpump is one of the most significant technological advances of recent times. It allows water to be lifted from great depths with relatively little effort, and is simple to operate and potentially it can be maintained by locally trained volunteers. In larger villages the preferred option is to raise the water into an overhead tank and then distribute it through stand-post taps. But even here handpumps play an essential supplementary role.



Constraints of the strategy

1. Bore-wells are yet to be established in every habitation.
2. Today though larger habitations are mostly covered, many smaller habitations close to the norm are not covered. Also in many hilly areas and forest areas there are habitations where coverage is below the norm.
3. Bore-wells easily break-down, and require considerable maintenance. With the Mark-III handpump it became possible to repair it locally. But this is not possible for energised bore-wells or in a number of break-downs where spare parts are needed or the repair is beyond local skills. The key to the solution is a combination of adequate training of local artisans/women in handpump repair backed up by a repair service that is easily and reliably accessible – if needed by linking up with entrepreneur provided services.
4. Bore-wells run dry: The main cause of this is a declining water level. In such areas bore-wells for drinking water supply needs to be part of an overall watershed development programme which ensures that the water level does not decline and that plans integrated water use for irrigation and industrial needs along with domestic needs. Thus surface water management – water in village ponds, in irrigation tanks and in river beds has to be actively taken – and merely digging large number of bore-wells will not solve the problem. Purification and use of surface water through infiltration galleries or low cost methods like storage and chlorination may be required.
5. Water-quality is a problem: Contamination of water by fluoride, arsenic or iron or salinity are wide-spread problems. A survey of drinking water problem habitations was undertaken in 1991, based on 1% random sampling. This was validated in 1994 and updated in 1999. As per results of this survey, a total of 2,16,794 habitations were found having water quality problems, with break-up as follows: Fluoride 36,998, Salinity 32,597, Iron 1,38,670, Arsenic 4003, Others 1400. In such contexts usually one has to purify surface water sources and use it. Or alternatively one can detoxify water - remove the iron or fluoride or arsenic or salts – but these are often difficult and in practice people may just relapse to use surface water anyway. Fecal contamination is discussed in next section.
6. Neglect of Traditional Water Management Strategies: In many areas there were existing traditional strategies suited to the local conditions that served people well. However with a focus shifting to only bore-wells many of these traditional systems were not maintained. Now, when the bore-wells run into some of the problems described above, these systems are no longer available to fall back upon.
7. Lack of community Participation: There was not enough awareness of their rights to water, on mechanisms to ensure that people all got a fair share and that they could maintain the water source properly.

ENSURING THE SAFETY OF WATER (MINIMUM QUALITY) USED FOR DOMESTIC PURPOSES

Strategy

1. Major strategy has been encouraging use of bore-wells with hand pumps. Where water is pumped from bore-wells into overhead tanks and then piped to stand-posts there is a need to additionally

ensure that water stored in the over head tank is chlorinated. Bore-wells need to have an outer casing properly installed and a cement platform ringing the pipe so that surface water does not flow down the pipe and contaminate the ground water. Proper drainage of the waste water from the pump also decreases the possibility of surface water contamination.

2. Chlorination is a must when water is used from open wells. However since water is constantly being drawn out the chlorination must be done repeatedly and in high enough a dose to ensure that there is always adequate residual chlorine – and this level of chlorine often makes the taste unacceptable. It would be better if water was drawn into a tank and chlorinated there when the dose could be adjusted better.
3. When water is used from irrigation tanks, rivers, streams or canals it is best drawn out through an infiltration gallery when it would get purified by filtration. This is relatively costly and usually used only when being used to supply water for a large town. Or water is filtered in water treatment plants using slow sand filters or other suitable technology, as is done for larger towns and cities.

Norm

Water is defined as safe if it is free from biological contamination and chemical contamination (excess arsenic, fluoride, salinity, iron, nitrates, etc.). Biological contamination is defined by the presence of any bacteria that has fecal origin.

Rural drinking water supply is, to a large extent, dependent on ground water (85%). Though ground water is less susceptible to bacteriological pollution such contamination could arise from poor hygienic conditions around the water sources, improper disposal of sewage including location of toilets near such water sources and poor hygienic practices while drawing and using water. Most water quality problems in ground water are however chemical and inherent in the form of contamination caused by the nature of the formation they are drawn from, viz. excess fluoride, arsenic, brackishness, iron, etc. Other reasons for chemical contamination are:

- Improper disposal of industrial waste water,
- Careless disposal of solid waste,
- Indiscriminate use of chemical fertilisers having high quantity of nitrates used in the agricultural sector,
- Pollution from industrial effluents (untreated), over-exploitation leading to quality degradation.

The depletion of ground water level causes higher concentration of the contaminants in the sources of water even with the same degree of contamination as before. Inadequate recharging also aggravates the problem of chemical contamination.



Strengths of the Strategy

Most bore-wells have safe water, especially if care has been taken to avoid surface water contamination by leakage from the surface along the pipe stem. Since this is the main strategy of water supply safety of water comes along with it. About 85% of rural water supply is based on ground water.

Constraints of the Strategy

1. However where the bore-well water cannot be used – due to any of the problems described earlier – the alternative sources have high potential for contamination and difficult/costlier to treat. Where alternative sources are used for larger populations like a town or city then large water purification systems like sand filters are cost effective – but these are usually too costly for supplying a village. However a wider consultation with experts in this area may provide solutions for such villages where bore-well water is not available or not potable. About 15% of rural water supply is based on surface water.
2. Bore-wells can also get contaminated and their chlorination is advisable too but seldom done. Bore-well maintenance helps reduce contamination but village level institutional mechanisms to ensure this could be weak.
3. Often water has to be piped in from an overhead tank which is filled up from a central water supply or from a local bore-well. Where water is piped in, usually water flow in the pipes is intermittent leading to large negative pressures inside. Invariably where the water pipes pass through the soil it goes close to sources of sewage or waste water and such water gets sucked into the drinking water supply. This sewage contamination of drinking water leads to large outbreaks of diseases like typhoid, jaundice and cholera.
4. In any outbreak in a village the exact source of the outbreak can be located by careful and quick epidemiological study- and this must be done. If it is the piped water then the point of contamination must be identified and remedied. Periodic water testing also helps.

ENSURING PERSONAL AND DOMESTIC HYGIENE NECESSARY TO PREVENT SPREAD OF WATER BORNE DISEASE

Current Strategy

Health promotion through health education.

Norm

Safe practices consistent with personal and domestic hygiene be followed. Of these measures hand-washing with soap before preparing and serving food and eating and after use of toilet and not dipping

hands into drinking water are closely related to the prevention of recurrent diarrhoeas, worms and other water borne diseases.

Strengths of the Strategy

Handwashing is one of the most effective measures for reduction of recurrent diarrhoea in young children and indeed it helps at all ages. The reduction of pests and vermin and keeping food and water out of contact with them is the next most important.

Constraints in the strategy

1. Often the poorest sections cannot follow many personal and domestic hygiene measures due to lack of resources.
2. More often practices related to hygiene are difficult to change. There is a need to make such behaviour the social norm.
3. Often behaviour change communication strategies are full of general messages. They do not identify and address perceptions and other determinants of current behaviour through well focused relevant messages. There is a need for effective BCC coordinated with enabling change by addressing practical constraints.

ENSURING SAFE DISPOSAL OF EXCRETA (THE USE OF SANITARY LATRINES : HOUSEHOLD LATRINES OR COMMUNITY LATRINES)

Current Strategy

The current strategy is known as the Total Sanitation Campaign. It has 6 components:

1. **IEC:** A multi media campaign is recommended. Special focus on the use of motivators and the use of cultural media and mass media. Since two thirds of toilet constructions are from APL households where no subsidy is given – the only input that goes into creating change is BCC.
2. **Rural Sanitary Marts and Production Centers:** Here NGOs, self help groups, Panchayats or entrepreneurs are helped to set up a production center and/or sales centers for sanitary goods the most important of which is the sanitary latrine. Some RSMs focus on building toilets for households, some only on making supplies. The RSM is a critical strategy to ensure that APL families are able to build toilets. Even where government subsidises toilets there are major supply side problems. It is difficult to get the masons, the pans and the material to get them built. Having a functional RSM in that area solves these problems. The number of RSMs a district needs depends on the turn over – but one per district is an absolute minimum.
3. **Individual Household Toilets:** There are three types on offer. One is the septic tank which costs anything from Rs. 7000 to 15000 and is not any safer than a leach pit latrine. The second is a single



pit or a double pit leach pit, lined or unlined, with a pour flush latrine. These cost Rs. 2000 to Rs. 6000 and they are effective and safe and easy to maintain. The third is a ventilated pit with pan on top of pit. Here the costs range from Rs. 600 to Rs. 1500. Superstructure costs are additional to the above. The schemes also vary with differing amounts of subsidy being available to the BPL. Most states have no subsidy for APL households. Subsidy amounts range from Rs. 500 to Rs. 2000.

4. **Community Sanitary Complex:** This is particularly relevant where there is a lack of space to build individual toilets. Schemes vary with community paying differing contributions from nil to as much as half the costs. The critical bottleneck is cleanliness and maintenance and usually this is provided for by either a user fee arrangement or a regular subscription. Where such an arrangement is not made, this seldom works. Better complexes have also bathing rooms and separate sections for men and women.
5. **School Sanitation:** Urinals and latrines for boys and girls separately and for teachers too are an essential part of school hygiene and indeed of school education. School sanitation has been shown to have a positive effect on enrolment and markedly reduce drop outs especially of girls in higher classes. Challenges are like those for any community toilet in maintenance and cleanliness. Maintaining an adequate number of toilet facilities and staggering recess to ensure that all pupils can access it are accessory strategies.
6. **Anganwadi Sanitation:** At the age of 3, a child can be sufficiently trained to use a toilet. And it is a good time to start. Again the issues are of maintenance and cleanliness, of adequacy of facilities and additionally of ensuring toilet training. Special child friendly toilets are advisable and not difficult to design or construct.

Norm

The goal is defined as every household using a sanitary latrine. Though safe disposal of solid and liquid wastes are also included the emphasis has been on the universal use of sanitary latrines. A village that achieves this goal can apply to the district administration and when this happens, the village is visited and if the claim is found to be true – it is certified as a Nirmal Gaon – and awarded the “Nirmal Gaon Puraskar”.

Constraints in the strategy

Institutional Arrangements

In some districts, total sanitation campaign has been a major success. In many others however it has not worked upto expectations. One of the key reasons are poor institutional development and management of the plan. District planning for total sanitation is now a major part of the TSC strategy and this should be integrated with the district health plan. The other dimension is the building up of village level health and sanitation committees which are effective. This too has been a major bottleneck.

IEC

Often IEC is focused on a few standard messages and often fails to secure a change of attitude or practices despite much expenditure. Some points are worth noting. One major finding is that the desire to construct latrines is present in over 70% of households. So it is not lack of awareness but other constraints that need to be addressed. The major reasons for seeking latrines are not only health – but women's dignity, convenience and privacy needs. BCC can build on these needs to secure a change of behaviour. Communication is also needed for spreading information on subsidy available, on awareness of actual costs (most often the costs are over estimated and cheaper models, though available, are not advocated), There is also a lot of skepticism about the leach pit which needs to be overcome. The leach pit is often seen as infective in contrast to the septic tank when this is not so. Especially when the septic tank outflow is not connected to an underground sewage, it is this which is more infective. There is also evidence that Panchayat members and trained motivators are more effective inter-personal communicators than others. Finally there is a gender dimension –women need and desire toilets more but the decision generally rests on men. Careful formative research is thus the key to improve the quality of BCC and making it effective. The major increase in toilet construction and use needs to come from just this.

Constraints in setting up and functioning of RSMs

- Choice of the right entrepreneur is one major challenge. There are many individuals and organisations that need an income or want a salary – but few have entrepreneurial skills to maximise production and sales.
- The exact business plan suitable to a specific context is also an issue. In some contexts reimbursing the unit after installation is adequate. For others organising the working capital is needed. Some RSMs make a good turn over even from supplying bricks and cement – others are focused on supplying masons who do on the site installation. Some choose ferro-cement rings for lining which is centrally manufactured and purchase pans from the market. Others choose locally made pans and use of brick lining.
- The considerations that go into the correct choice depends on many factors and hand holding is required for new units to learn. Building an enabling environment for these to pick up is essential.
- Finally margins in this work are seldom high. One needs to incentivise this work with other campaign grants or other contracts like in IEC so that they are encouraged to continue with this.

Constraints in construction and use of household toilets

There are a number of studies that have examined why people do not build toilets. We quote from one of these, the most recent and extensive study we could get, to discuss these issues further.¹ Those who do not build toilets are shown in this study to attribute the following reasons:

1. Mid term evaluation of Total Sanitation Campaign, submitted to RGNDWM, Ministry of Rural Development, Government of India and conducted by Agricultural Finance Corporation Ltd., Delhi, March 2005



1. Lack of finance : 80%: Subsidies are the major form in which the lack of finance is addressed. Linkage to self help groups and payment in instalments is another option. and lowering costs of latrines by technology choice is the third.

Sr. No.	District	IHH	School	Anganwadi	Community Complexes
1.	Chandrapur	60%	90%	90%	80%
2.	Vellore	500	20000	4500	Rs.2.00 lakh (As per Chef Education Officer)
		500	1800	4500	Rs.80,000(As per DRDA)
3.	South Tripura	@Rs.550/-to Rs. 600/-	@Rs.18000/-	@Rs.4500/-	@Rs. 2.00 lakh (for women complex)
4.	Khammam	Rs.2000/-	-	-	No community complexes were taken up
5.	Bijnour	Rs.500/-	Rs.11700/-	Nil	41200
6.	Bokaro	500	1800	1800	16000
7.	24 Parganas (N)	225	13950	-	64000
8.	West Medinipur	225	1500-22000 (Primary)(UP)	12000	75000
9.	Kasargode	2000	20000	5000	Rs. 2.00 lakh
10.	Surat	500	1800	4500	160000
11.	Chittoor	2750	-	-	-
12.	Alwar	-	-	-	-
13.	Narsinghpur	500	18000	-	120000
14.	Sehore	125	2000	-	-
15.	Jorhat.	80%BPL farmlies	90%	-	-
16.	Bellary	625	1800	-	Rs. 55000
17.	Ratnagiri	600	10800	7200	Rs. 24000
18.	Ouddalore	550	36000	-	-
19.	Chandauli	625	10000	-	No community complexes were taken up

2. Lack of space: 6%: If lack of space is severe, then community latrines are the only option. Lack of space for even community

toilets must be addressed by town planning and public regulation of area development.

3. Others – especially motivation: 14%: There is still a sizeable section which is not sufficiently motivated for using toilets. This is specially so in social settings where less than 25 % are currently using toilets or in rural settings where land and privacy is easily available as compared to semi urban or large village settings.
4. The willingness to pay and the desire for latrines is also related to the education of women. In households where there is at least one woman with over 8th class education, perceptions change and the willingness for toilets is established. But in low educational areas the reverse is true.

Community Sanitary Complex

1. The central problem is the inability to manage the local institutional arrangements needed for regular maintenance. There are two routes to achieve this. A small user fee can be collected every time the toilet is used. This is useful in bus stands and railway stations etc but not the best

option in a fixed stable community. Here a collection of a small fixed sum like Rs. 10 per family per month is usually required. Linkage to a self help group or any other community fund helps to ensure regularity of payment in management of toilets.

2. Other problems are a poor ratio of toilets per population leading to long queues and poor maintenance.
3. Inadequate design due to lack of thought or lack of resources is another problem – common problems being non separation of male and female facilities, lack of lights, lack of provision for storing water and refilling water promptly.
4. Lack of availability of land for constructing a public toilet could be a problem for few families would welcome such a facility near their own house.

School Sanitation

The problems are all similar to the problems of the community sanitary complex except that one cannot charge user fees or regular toilet maintenance fees separately. Also that promotion of use of toilets is easier and very important as part of education on hygiene. Innovative arrangements for cleaning with student involvement in this activity is a tremendous contribution to the dignity of labour and a contribution against discrimination – but would need a motivated teacher and set up to implement. Separation of facilities for boys and girls and separate facilities for teachers are mandatory. Where ratio of toilets to students is low – giving different recess timings to different classes have worked.

Anganwadi Sanitation

The problems in this are similar to the problems in school sanitation. However both teaching toilet habits and maintaining cleanliness are even more of a problem. The central problem of course is that few anganwadis have adequate infrastructure of their own and thus there are no toilets to access. However TSC scheme provides funds for this and the district plan must work out a clear priority to show progress on this front.

ENSURING SAFE SOLID WASTE DISPOSAL

Current Strategy

Emphasis on this is varied. However there is a need for an adequate locally managed plan. There are many outstanding examples of such solid waste management. Given below is one such example. Exnora international, an NGO has done excellent work on this in many towns.



Norm

1. The first and basic step is to categorise all solid wastes into three categories at source – bio degradable and non hazardous, non bio degradable and non hazardous and hazardous wastes. Regulation may be required to ensure that such separation at source is insisted on. The source may be a domestic household, or an enterprise or an institution - the principle is still the same.

2. The second step is to collect the waste from the collection point

where it has been separated and left by the source. Who would collect it and what terms of remuneration is to be worked out- but it needs to be a paid person.

3. The waste is then deposited in suitable waste recycling sites. Biodegradable waste which is non hazardous – which is often the bulk can be recycled into compost by a number of cheap processes and this operation can get full cost recovery and even a modest profit. Hazardous biodegradable wastes (typically from a hospital) need deep burial in a small town or village or go to an incinerator in a large town. Non bio degradable wastes are further sorted and are sold to various manufacturers

A Best Practice in Solid Waste Management

The Solid Waste Management project in Kaniyambadi block is the brainchild of District Collector and DRDA Project Director, Vellore and implemented through an NGO. It attacks the problem of garbage accumulation in peripheral villages where composting yards have become dumping ground for used polythene bags, broken glass pieces and other garbage. Temporary employees appointed by Panchayats either burn the waste on site or dump them in unused wells and water bodies causing environmental problems.

At the launch of the programme in a GP, the Panchayat President and ward members and other volunteers visit each house to tell the people about the programme and motivating them to attend the awareness camps. At the awareness camps, personally attended by the Collector and senior Officials, the benefits and technology of the programme are explained. Each house is given two bins - one red and the other green. The non-biodegradable material is placed in the red bin and kitchen waste in the green one. Every day uniformed women and men workers collect the garbage from each house. The garbage is brought to the treatment yard. The inorganic waste is sent for recycling. The biodegradable waste is placed evenly in a green compartment made of casuarina poles. Cow dung and water sprayed over each layer of the garbage. When the compartment is full, the garbage is covered with polythene sheets helping the temperature to rise. After some weeks the composed manure is taken from the tank, dried in shade, packed in gunny bags and sent to the market for sale.

In some of the GPs improved manure is obtained through the additional element of vermi-composting. Biogas plants have also been attached to the compost units. Each participating family pays Rs.10 per month to the volunteers.

This project is implemented in 4 Panchayats at a cost of about Rs.13 lakhs. Already manure worth Rs.8 lakhs has been sold. It has benefited 3500 households and shops. The project has helped to protect the air and water sources, improve the general health of the community, create employment and generate income to the Panchayat. Waste has become wealth.

as raw material. In large towns the amount of waste generated is huge and organising management is a challenge. Regulation to reduce difficult to recycle types of waste like plastics is also needed as supplementary measures.

4. In towns and larger villages failure to organise this is shameful and actionable. In smaller villages the concept of so much effort for the small amounts of solid waste generated is still new. Also biodegradable waste tends to get used – but there is a major problem with plastics. Organising waste management at this level is another sort of challenge.

Strengths of the Strategy

Reduction of such waste leads to an immediate decrease in pests and vermin and therefore the spread of many communicable diseases. It has a direct bearing on kala-azar transmission also. With proper solid waste management, as outlined above, the problem gets converted into an opportunity for generating wealth from waste and for creating new livelihoods.

Constraints in the strategy

1. This requires proper institutional arrangements which, in turn, require considerable capacity to build. Since it is everyone's need – no one tends to take it up – and elected local bodies must be pressurised by the public to make this their major work.
2. This work is often socially undesirable and gets relegated to poor and marginalised sections. Once profits have come to be realised in this work the problems have got multiplied with considerable criminalisation and sleaze involved in waste management operations.

ENSURING SAFE DISPOSAL OF WASTE / EXCESS WATER

Current Strategy

There are three aspects of drainage. One is regular domestic waste water – the run off from cleaning and bathing and washing etc. The other is the run off from rains – and sometimes storm water – where there is a huge excess of water flow on a few days every year. A third is the management of stagnant pools of water which are not by definition, waste, but also require intervention to prevent breeding of harmful insects. This third aspect is considered usually as part of vector control – but such is the close relationship with the first two aspects that it is also useful to make them part of the same plan.



Norm

For small amounts of domestic waste water in the rural setting the usually preferred solution is the use of soak pits to absorb it or recycling into kitchen gardens. This is also useful for larger run offs from stand posts and hand pumps and institutions discharging water waste. For larger amounts, drains are needed. Independent of this one needs to provide for storm water drains to take care of excess rain water. Often correct sloping /gradient of roads and a large number of soak pits is adequate since village level drains perform very poorly. If drains are considered there are many design considerations to ensure that they do not clog easily and that their walls do not cave in—very common problems with the usual U shaped drains.

In larger villages and towns closed drainage system is mandatory and eventually a sewerage system. Low cost sewerage designs are available.

In vector control we can consider stagnant water of being in two categories – those which are socially essential and those which are waste and need not collect at all. In the latter are clogged drains, stagnant pools of water on roads and burrow pits and construction sites, water pooling next to drinking water hand-pumps etc. In all of these the focus is on drainage as described earlier. The other are large water bodies like irrigation tanks and canals, ponds, rice fields, drinking water wells where bio environmental and cultural methods are the methods of choice and often the only options possible. Vector control of large water bodies, irrigation tanks and ponds: de-vegetating the edges, and making a steep cut and using the water body for fish culture; irrigation canals: flushing periodically; rice fields: shift to intermittent flooding and drying of the fields or SRI system of rice growing; drinking water wells: fish rearing of non edible fishes like *Gambusia* if acceptable and so on. Or they are domestic collections like overhead water tanks, septic tanks, water in coolers etc. here the focus is to ensure that there is a drying out once in seven days to interrupt the cycle or preventing access of mosquitoes to the water. These are discussed along with vector control in Book 8.

Strengths of the Strategy

This is a poorly recognised but very important dimension of health planning. The investments in this are considerable but the returns in terms of not only a decreased incidence of illness but an improved quality of life are considerable.

Constraints in the strategy

Even low cost drainage has high costs. Also technological choice and innovation has a major role to play and there are few experts available who can think creatively and innovatively on this. Often high cost standardised options are preferred – usually due to lack of imagination or due to the choice being driven by kick-backs. Changing cultures requires even more effort when there are costs involved. In large villages and small towns this has become a matter of considerable urgency.

HEALTH EDUCATION/BEHAVIOUR CHANGE COMMUNICATION TO ENSURE THE ADOPTION OF SAFE HEALTH PRACTICES AND TO CONTRIBUTE TO PROGRAMME DESIGN

There are many areas of a comprehensive water and sanitation plan which an IEC campaign is the only input that the state can provide and there is no area of water and sanitation planning which can succeed without IEC.

We have discussed IEC/BCC under the total sanitation campaign strategy. The general principles of planning BCC outlined in Book 5 apply to this area also.

WATER QUALITY SURVEILLANCE AND THE SURVEILLANCE FOR WATER BORNE DISEASE

Current Strategy

Each district has to have a laboratory for water quality testing with a state level reference testing laboratory. The PHED is entrusted with regular quality testing. Low cost do-it-yourself kits are available - but they all use chemical consumables that are not easy to replace. Today about 400 districts in the country have such testing facilities.

The most important elements of water testing that needs recurrent testing is for nitrates and for fecal bacteria – usually E.coli bacteria of the type found in feces. Both of these indicate contamination with feces – which means that transmission of all water borne diseases is highly likely. The best tests for this are bacterial culture of the water. There is a low cost test available where in a small glass jar the media is kept and if the water to be tested is kept in at about body warmth for about 12 hours, then a black colour appears indicating a positive test. However there are too many false positives and negatives for this to be useful except as way of drawing popular attention to the problem of contamination.

- For most other elements it is adequate to test once a year – like for fluoride, arsenic, iron, saline, chemical pollutants etc.–unless we have reason to suspect a chemical contamination with one of the above substances in this area.

A simple community level water test

The H₂S paper strip test was developed by the DRDO in Gwalior as a simple test for the detection of fecal contamination of water. It can be used during an outbreak of waterborne illnesses to identify safe sources of drinking water, or for routine testing of water sources. The technique involved incubation of the water sample in the H₂S paper strip bottle in the laboratory for 48 hours. Jan Swasthya Sahyog (JSS) has adapted this test to use at the village level. It is recommended by JSS that the testing be done every 2 weeks for 5 months from June to October and a total of 2 times in the rest 7 months; assuming an average of 10 drinking water sources per village, require 120 bottles every year per village. This paper strip test to detect fecal contamination of drinking water can be used by the community themselves. Instead of laboratory based incubation it was found that if the water sample is incubated by contact with the body (keeping it in an inner pocket at the trousers waist line), comparable results are obtained. If there is fecal contamination, the water turns black. These H₂S based culture bottles cost Rs. 25 per bottle.



- The other major strategy is surveillance for water borne disease. This is discussed along with disease surveillance (Book 8 Lesson 6). This is currently completely the Health Department's task. However when outbreaks are detected, coordinated response action must be triggered. Response action of the Health Department is curative – to ensure that the affected are treated and deaths are prevented. Some immediate preventive measures may also be undertaken by the Health Department. However the water supply and sanitation programme must respond equally vigorously with action to trace source and take preventive action. This often does not occur.

CHALLENGES FOR THE DISTRICT PLAN

Water and sanitation is one area where to a large extent the district plan is the sum of village plans. Of course village plans would need to go along with enabling district/block level activities. We describe below the enabling district and block activities and then go on to detail convergence at the village level.

ENABLING DISTRICT/BLOCK LEVEL ACTIVITIES

There are four enabling activities needed from the district /block administration. These are:

- a) An enabling policy/administrative environment created to facilitate local planning and the creation of local institutional arrangements and to allow funds to flow according to this.
- b) A popular campaign to provide public awareness and support to the campaign. This BCC work is critical to the success of all aspects of the programme. In designing the messages and planning the campaign, the Departments of Health, Water and Sanitation, Panchayats, Education and Women and Child Development should necessarily coordinate. There is scope of pooling together resources and synergising strategies so that a number of changes in health related practices are secured.
- c) Good quality technical support is needed for effective local planning, correct choice of technology and programme design. This may be made available at the periphery through trained local groups or organisations, in addition to providing it through Department staff. Considerable capacity for technological innovation and adaptation is required in all aspects of drinking water and sanitation but especially in planning drainage systems. Thus, for example, in areas where the water table is very high, the usual leach pit design cannot be used. Or where water is saline or contaminated with iron or arsenic the bore well cannot be used. In each of these situations alternative technologies are available and should be sought. In choice of technology the considerations are not only that it is more effective and easier to maintain but also such that it provides local employment and control.
- d) Joint training programmes are needed at the district level for health functionaries and ICDS functionaries along with department in charge of water supply. This will ensure that each division understands their individual role and accountability in reaching the final goals as well as the roles where they need to work jointly or contribute to the work of other participants. The final goals are the reduction of water borne disease and universal access to safe drinking water and sanitation.

- e) Good Logistics and Supplies Management – so that specific supplies needed (like pans for toilets, or bricks, cement etc.) are available for the purpose.
- f) Monitoring for the district plan: For each of the activities indicators need to be developed. These are already available. Then the time schedules need to be made so that monitoring is enabled. The importance in monitoring is to be able to know at the block level the progress that villages are making in relation to each other towards the goals of reduction in water borne disease, and universal access to safe drinking water and sanitation. This would help the district to divert more resources and support to Panchayats that are lagging behind. If in addition we construct process indicators carefully, we can measure the degree of convergence that is happening, which sector/player at that level is not coordinating or contributing effectively and corrective action can be taken. One set of indicators that can be used are:

- Number of outbreaks of water borne disease (jaundice and diarrhoea mainly).
- Percentage of households using only safe water for domestic purposes (percent of villages where the number of such households is more than __%).
- Percentage of households having access to safe toilets (percent of villages where the number of such households is more than __%).
- Percentage of households where *all* family members are using toilets *only* (percent of villages where the number of such households is more than __%).
- Percentage of safe water sources where the maintenance is adequate and water has tested safe (percent of villages where all safe water sources are maintained adequately).
- Percentage of safe water sources where there is no stagnant water and there is adequate drainage of excess water near source (percent of village where there are no stagnant water pools near drinking water sources)
- Percentage of villages where there is no stagnant water in drains/pools year around or which is effectively protected from being site of vector breeding.
- Percentage of villages where there is adequate drainage system to prevent significant stagnant water even during rains.
- Percentage of villages where there is an adequate and functional system for removal of solid wastes.

One may start with some of these indicators and then move on to achieving all of these.

SUPPORT INSTITUTIONS NEEDED AT THE DISTRICT AND BLOCK LEVEL

- a. Rural Sanitary marts: To provide all consumables, technical skills and designs needed for all aspects of sanitation. Once demand picks up such marts would be required in every block.
- b. Engineering Units for Installation of bore-wells and building of piped water supply systems- digging rigs, equipment, engineers, skilled manpower.



- c. Engineering Units that can design low cost sewage systems and rural drainage systems.
- d. A technical support unit that can assist villages in planning for BCC programmes, evaluate progress, and ensure sustained advocacy for change. There are many innovative technical solutions that may be appropriate in specific situations; one such example is the UV disinfection system. A district technical support unit that can offer such technologies would be a major step forward.

Information for Planning: One of the most important databases to aid district level planning and monitoring in water and sanitation is the National Habitation Survey 2003. The National Habitation Survey 2003 is an amazing data-base available on line of every single hamlet in this vast nation. This provides a detailed listing of all habitations with respect to villages, blocks and districts. For each and every single habitation it provides the data on SC and ST population. For each and every habitation it also provides the government facilities available – anganwadis, primary health centers, schools etc. It then also describes the drinking water situation in detail – including an estimate of water availability per capita. This data can be accessed from the ministry website or directly go to http://ddws.gov.in/habquery/main_menu.asp

SPECIFIC SUGGESTIONS FOR CONVERGENCE AT THE VILLAGE LEVEL

A meeting on inter-sectoral convergence held in March proposed the following steps for improving convergence between the NRHM and the National Drinking Water Mission and Total Sanitation Campaign. The meeting made a number of suggestions which are expanded and elaborated upon below:

- a. That there is integration at the Panchayat level of the health committee and the water and sanitation committee – to form a single health and sanitation committee. Such committees may be the formal statutory sub-committee of the elected Panchayat or the informal and more mobilisational committees of the village and hamlet level. In both these situations the aim should be for integrated committees.
- b. ASHAs should play a key role as prime motivator, informant and facilitator of these committees.
- c. ASHA would also play a role as motivator for construction of household toilets and therefore also benefit from the small incentive provided to the motivator. This would provide some limited support to ASHA. A grass-root worker is entitled to an honorarium of Rs 500 per year for monitoring of water quality. This has to come from community contributions collected by the Panchayat. The effort would be to promote ASHA to play this role also.
- d. Joint monitoring by the committee to ensure that platforms are constructed around hand pumps so that surface water contamination of the bore well water is prevented. The primary responsibility would be with the Water Supply Department for the construction and with the community for its maintenance. This is true for whatever water source is being used

- e. Joint monitoring by the committee on outbreaks of water borne disease to detect cause and take preventive action for the future. Also to notify the authorities for immediate health interventions in the event of a disease outbreak.
- f. Draw up a village health plan which fully integrates the issue of access to safe drinking water for all and total village level sanitation. Assign various functions to various individuals and then monitor to see that the plan is implemented.
- g. an untied fund for the village health and sanitation committee should greatly facilitate this village level planning and implementation efforts.

BEST PRACTICES

There are many best practices known in this area. The challenge is mainly to find the resources and the will to replicate it over the entire district/ state. Some examples are given in the boxes. Others could be obtained from the net. The Ministry's website itself lists a number of best practices.

Appropriate Technology for Rural Needs: The UV Disinfection System

The Jan Swasthya Sahyog has been propagating the use of a simple low cost treatment option for drinking water that has fecal contamination using an ultraviolet light based treatment apparatus. Unlike the commercial UV based technology it can be used for water that is not running (as is the case for most rural and urban households). It can be used where there is no electricity and can be shared by many households. This disinfecting system uses a 254 nm light from a 9W tube light. In ten minutes 20 litres of clear water can be disinfected. It can run using either AC mains or 12V battery or a cycle dynamo. The progress and completion of the disinfection process is also displayed. The cost of the system is Rs. 1500.

I. Review Questions:

1. What are the communicable diseases that are water borne and which are water related but not water borne?
2. What are the ten components of a comprehensive water and sanitation plan?
3. What are the constraints in universal access to toilets and how does the total sanitation campaign address this?
4. What are the areas of waste water management and how do they relate to health needs?
5. What are the areas where the Health Department, the Department of Panchayats and the Public Health Engineering Department have to work together?

II. Application Questions

1. Is it better to go for a separate watsan plan? Is not combining it with health making it too bulky? What are the pros and cons of such a combined plan?
2. If we want to show some early gains which how would you choose some priority areas and segments of the population where such gains can be shown?

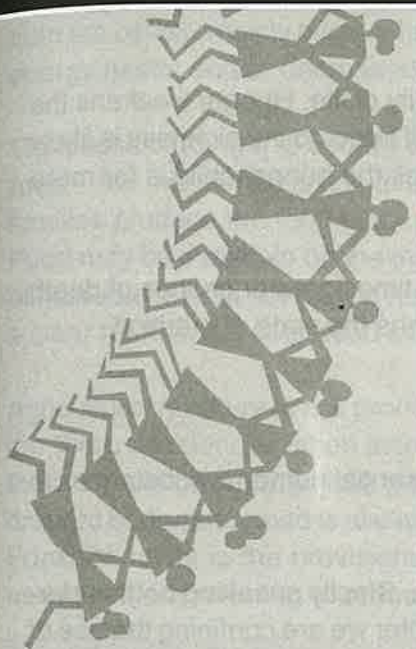
III. Project Work

1. Examine the total sanitation campaign made for your district? Which are the areas that it has covered?
2. Draw up a comprehensive watsan plan for one gram panchayat.



Lesson THREE

Nutrition and Food Security in the District Plan



In this lesson we shall discuss:

- The relationship between hunger and health
 - Meanings of nutrition, malnutrition and starvation
 - Meanings of food availability and food security
 - Relationships between economics and food security
 - Government strategies to provide food security; and the constraints they face
 - Local Initiatives for food security
 - Key dimensions of a district plan for combating hunger and ensuring food security.
- 

HUNGER AND HEALTH

A hungry India cannot be a healthy India. A hungry child cannot grow or learn to its full potential. A hungry person cannot be as productive.

Hunger is painful. It is terrible and tragic. Hunger in itself reduces the quality of life. Hunger weakens the body's resistance to disease. A hungry child is more likely to get infected. If infected the sickness is likely to last longer. If sick the degree of sickness is likely to be more. And if sick the hungry child is far more likely to die of the sickness.

A child with Grade III malnutrition for example is estimated to have a 300-times greater chance of death from measles than a normal child. And repeated infection in its turn worsens the state of nutrition.

MEANINGS AND DEFINITIONS

Nutrition refers to the process of taking in adequate energy and other essential nutrients/substances in the form of foods to maintain the organism/body in a healthy state.

Malnutrition refers to a state of deficient nutrition – or nutrition imbalance. Strictly speaking both under-nutrition and over-nutrition qualify to be called malnutrition. But in this chapter we are confining the use of this term to under-nutrition. Under-nutrition refers not only to a quantity of food but to a deficient quality as well. Usually when we talk of deficient quality we are referring to the fact that irrespective of the situation regarding calories, there is a lack or excess of one or more essential constituent.

The essential constituents of a balanced diet are carbohydrates, proteins, essential fats or oils, the vitamins, minerals and roughage.

Hunger on the other hand refers to a lack of food intake – primarily to a lack of calories. The most common cause of malnutrition is hunger.

Starvation is a state of acute malnutrition due to hunger.

Malnutrition can be **acute malnutrition** – developing over a short period of time, or **chronic malnutrition** which means long standing. There is no clear way of separating the two. A person with chronic malnutrition can face a further worsening of food availability and go into acute malnutrition. Or an acute malnutrition can get corrected with sub-optimal levels of food and go into chronic malnutrition.

Starvation is a cause of death in itself. However in most cases of starvation, like in chronic malnutrition, the final cause of death is due to some intercurrent illness.



Primary malnutrition refers to malnutrition primarily due to lack of food. **Secondary malnutrition** refers to malnutrition secondary to illness – like tuberculosis, HIV infections, malignancies etc. Both acute and chronic malnutrition can be due to primary malnutrition alone or due to secondary malnutrition alone, but both are usually mainly primary but with a significant secondary component. Most illnesses lead to increased energy needs and/or decreased absorption from the gut contributing to malnutrition.

The cause of hunger is usually a **lack of access to food**. This may be due to a **reduced availability of food** – but more often is due to the **inability to purchase food** due to poverty. In many communities the families produce the food that they eat and a failure of harvests can lead to a food scarcity and hunger. Food may be available on the market but since their income comes from the production of food, a failure of harvests results not only in reduced food but also reduced income. Therefore in such families there is a clear relation between food availability and access to food.

Agriculture by nature is risk prone. Invariably in certain seasons crop production fails. In most occupations too there are periods when incomes cannot be assured. Yet it is a social norm of modern society that there should be an absolute guarantee that even in such circumstances, such as large scale famine, drought or disaster, food is always available and no one has to go to bed hungry let alone die of starvation. **Food Security** is the provisioning to ensure access to food. The term **Nutritional Security** would be used if we are referring to reduced risk to access quality nutrition and not only adequate calories.

Measures of Malnutrition & Hunger

Poor growth in childhood is a marker for poor nutrition of children and also for a variety of psychosocial and medical problems. For this reason growth monitoring is a component of child health surveillance programmes worldwide. In general, weight gain is used as the measure for identifying babies and young children who are failing to thrive, and it is generally assumed that the more severely underweight, the worse the prognosis. Less commonly length is utilised in interpreting the significance of a child's weight.

Four main indices are being used to assess nutritional status in children. **Height for age, weight for age, BMI for age and weight for height (age independent).**

The different indices have their merits and demerits in their own context and these are complementary to each other; and can be used in combinations according to the need and settings.

Weight for age has been the most widely used index for assessment of nutritional status. Weight for age growth charts, which are widely used for growth monitoring of children are based on percentiles. Under-nutrition measured with this index has been classified into four grades of malnutrition, in an ascending order of severity. Norms for assessment of under-nutrition using this index have been the most commonly used for the last three decades. Besides this, balances and weighing scales are available in most areas, up to village level and Anganwadi Centres, and field level functionaries, with low levels of literacy can perform the simple operation of weighing and classifying children on the basis of their nutritional status. Weight for age scores are also the most readily observable and reversible change, and therefore, can be used to assess improvement following interventions.

Height for age is an important parameter for assessment of nutritional status. Height for age, indicating stunting, is a cumulative and multi-factorial index. It indicates the effect that chronic and intergenerational under-nutrition has over a period of time on the child's physiology. Stunting however is not as widely used in community settings as weight for age, as it is not easy to measure length/height accurately in infants and young children, majority of the field functionaries are not well trained in height measurement, and instruments for measuring length/height are not readily available in community settings. Moreover, unlike weight, linear growth faltering does not get reversed with supplementary feeding, and so it cannot be used as an index to assess adequacy of ongoing intervention programmes. Height measurement, therefore, cannot be used as a single index for assessment of nutritional status, but used with weight for age, it can derive indices such as BMI or wasting.

Body Mass Index (BMI) for age is the most appropriate index for assessment of nutritional status in situations of dual nutrition burden. BMI is calculated as weight/square of height. BMI-for-age takes into account current height, and correctly identifies children with low BMI for the age - requiring health and nutritional interventions to achieve optimal weight for current heights. It can be used to assess adequacy of nutrition intervention measure (achievement of optimal weight for height for age). BMI for age can be best used in research efforts to assess the adverse health consequences of under-nutrition, and the sensitivity and specificity of this index vis-a-vis weight for age index and association with health hazards needs to be documented. However, in community settings, BMI cannot be easily used due to the computation required to derive the index and the lack of training on this of field personnel.

Weight for height, indicating wasting, is an index independent of age. Wasting is also a widely used indicator, especially in large sample surveys such as the NFHS, to estimate nutritional status of the population. When appropriate equipment and training for measuring weight and height are available, without the technical capacity to compute BMI, wasting is considered to be a good indicator. Wasting indicates acute under-nutrition and is reversible in the short term. Therefore, it is also a good index for measuring programmatic impact.

Other measurements: Certain other less commonly used anthropometric indices such as mid upper arm circumference (MUAC), skin fold thickness, chest circumference, basal metabolic rate and head circumference are also used to measure nutritional status and growth retardation in children. Out of these, MUAC is a reliable measure of nutritional status of children, and is applicable in community settings, as it is easy to measure. Simple easy-to-read colour coded bands are available that can be used by field personnel with minimal training. In the absence of weighing scales in certain situations and with community health workers, MUAC can be a good substitute. However, MUAC does not increase significantly with age, and the average remains at 12.5 cms. for children in the 6 to 59 months age group.

The Clinical Signs of Malnutrition: Marasmus and kwashiorkor are two devastating clinical manifestations of severe malnutrition. Kwashiorkor is caused by acute protein deficiency and it used to be seen among children in the 2-3 years age group. The common clinical symptoms are oedema (swelling due to accumulation of fluid), growth failure, muscle wasting and retention of sub-cutaneous fat. Marasmus on the other hand, is caused due to a combination of protein and carbohydrate deficiency, usually seen in a context of children who have been breast-fed with delayed complementary food initiation. It is more common in the 1-2 years age group. It presents as by extreme muscle wasting and loss of sub-cutaneous fat, leading to a loss of up to 50 percent of the reference body weight.

For adults and older children, BMI is the most useful indicator.

A BMI of 20 to 25 is normal. 18.5 to 20 is underweight. Below 18.5 is malnourished. Below 16 it is severely malnourished. Similarly between 25 and 30 it is classified as overweight. And above 30, it is obese.



THE DIAGNOSIS OF STARVATION

One important consideration for any district administration is in being able to identify and respond promptly to starvation.

At the individual level there is a broad consensus that a BMI of 16 and less should be used as a cut off point to demarcate starvation from undernutrition. A 30 kg person (~BMI of 16) needs 500 Kcal per day to maintain himself at Basal Metabolic Rates, without any activity. Therefore such a low intake is also an indication of starvation.

For diagnosing that the population in a given village/ area is suffering from starvation, the following indicators may serve to define an adult starving population:

- Increased death rates in the community, in the absence of mass disasters, epidemics, or other accidents
- Nutrition indicators below national or state averages
- Reduced food intake from PDS
- Other criterion of reduced food security like eating unusual foods, crop failures, rain failure, suicides, indebtedness, very low incomes, no work

Verbal autopsies should be used in conjunction with the above to assess any starvation deaths.

For children, starvation may be diagnosed by the following:

- Increased death rates - an exercise must be done to calculate age specific death rates, and compare this with the national averages to define increased death rates.
- Measuring anthropometry and assessing nutrition status of siblings
- Access ICDS records if possible
- Doubling of percentage Grade III and IV from the national average can be taken as a starving child population

Verbal autopsies to assess any suspected starvation deaths.

When do we call it a starvation death?

One legal answer to this was to ask for a post mortem and demonstrate that there is no food in the stomach. This however is subject to so many errors, even if one can get it done, that this criteria is of no use. In fact its only purpose may be to deny starvation deaths.

The criteria proposed by the Jan Swasthya Abhiyan was that "any death in a person with a BMI less than 16, who died of any illness whatsoever, where a visit to the house shows no stored grains or food, or only such material as is normally not used as food, may be considered a starvation death."

THE ECONOMICS OF NUTRITION & OF HUNGER

The Extent of Under Nutrition: About 320 million people in India reportedly go to bed without food every night, representing over a third of the estimated 840 million hungry people across the world. This unhappy trend has been confirmed by the Food and Agricultural Organisation (FAO), which estimates that over a fifth of India's population still suffers from chronic hunger and that the number of undernourished people in the country increased substantially in the second half of the 1990s. Tracking the incidence of hunger in India over three reference periods during the course of the decade (1990-92, 1995-97 and 1999-2001), a recent FAO report recorded an initial decline from 214.5 million to 194.7 million, before a near total reversal of all gains pushed up the number of the undernourished to 213.7 million.¹

The reasons for the increase in hunger are to be found in economic policy. For one, it is related to the decrease in public expenditure on rural development which includes expenditures on agriculture, irrigation, flood control etc. in the 1990s. The slow growth of agriculture not only means less food grain production and availability but also less employment. Decreased employment also results from mechanisation in agriculture. And decreased employment meant more poverty and more hunger. A considerable part of the Indian industry is also dependent on agricultural produce as raw material.

The key steps to combat hunger are economic policies that promote gainful employment, ensure the access of local communities to natural resources, and ensure adequate growth in the agricultural sector. Trade laws and policies must also be able to ensure universal employment, access to local natural resources and adequate agricultural growth.

A shift away from grains production to other crops consequent to changes in trade policies has also decreased food availability. In the half-century before Indian independence, per capita foodgrains output fell by nearly 30 percent while export crops grew ten times faster than foodgrains. After Independence, from the early 1950s to four decades later, taking the 3 years ending 1991, the per capita food grains availability had climbed slowly from 155

kg. to 177 kg. -the achievement not only of 'Green Revolution' but of expansionary policies slowly raising mass incomes and demand, without too much rise in already high inequality. While the Green Revolution had many problems, its positive achievement in raising grain availability and absorption, should not be underestimated. All this was reversed from the early 1990s. With the new policies from 1991 we find a decline of per capita absorption to 174 kg by the triennium ending in 1998 and a very steep fall after that to the current abysmally low 155 kg level. In effect, forty years of successful effort to raise availability of food had been wiped out in a single decade, with over four-fifths of the decline coming in the last six years.² This decreased per capita absorption goes along with the development of relatively large buffer stocks of grains- not due to increased production but due to sharp decrease in purchasing ability and offtake in food security schemes. The poor offtake in food security schemes were due to design issues, poor implementation and such poverty that the schemes were just not good enough. Alienation from forests and the village commons of water and land have

1. India Together, Covering the Republic of Hunger, Jan 2006, www.indiatogether.org

2. Theorising Food Security And Poverty In The Era Of Economic Reforms, Utsa Patnaik, April 12, 2005, IIC Public Lecture.



also contributed to increase hunger. Loss of access to natural resources and a decline in food production for the home needs is another major source of loss of food security. As a result of all this the last ten years have therefore seen numerous suicides in rural areas and repeated reports of starvation deaths.

The NFHS data measures child malnutrition between 1998 and 2006 and found very marginal change – a decline from 47% to 44 %- almost a stationary level. This is a direct confirmation of the persistence of high levels of poverty and hunger.

It follows that the key steps to combat hunger are economic policies that promote gainful employment, ensure the access of local communities to natural resources, and ensure adequate growth in the agricultural sector. Trade laws and policies must also be able to ensure universal employment, access to local natural resources and adequate agricultural growth. To this we must add the dimension of protection of some sections from social exclusion from these basic entitlements.

ADDRESSING FOOD SECURITY–SCHEMES AND THEIR CONSTRAINTS

Conceding the fact that economic planning as it is today is going to create considerable inequity, and that further, a large part of the population may not have adequate livelihoods, it becomes an urgent priority for the government to organise measures of food security. There must be measures in place by which the government is able to guarantee that no one would need to go to bed hungry- that at least food would be possible for every single household to access – irrespective of social or economic circumstances.

The main government strategies through which food security is sought to be provided are:

1. Public Distribution System
2. Employment Guarantee Act and Schemes
3. Annapurna Yojana
4. Antyodaya Anna Yojana
5. ICDS Programme
6. School Mid Day Meal Programme
7. Social Security Pensions (including National Old Age Pension Scheme)
8. Welfare Institutions for Specific Vulnerable Groups
9. Food grains for SC/ST/OBC hostels
10. Village Grain Bank Scheme

PUBLIC DISTRIBUTION SYSTEM

Main features of strategy

- i. Public Distribution System (PDS) is the flagship programme aimed at providing subsidised foodgrain to poor households through fair price shops. In addition to foodgrain, it provides subsidised kerosene and sugar in most states.

ii. PDS mainly caters to four centrally sponsored schemes:

- BPL grain: Under this scheme, all BPL households are entitled to at least 35 kgs of grain per month at subsidised price (Rs.6.15/kg for rice and Rs.4.65/kg for wheat). The BPL households are identified by state governments through a census survey based on parameters defined by the Central Planning Commission. They are issued a BPL ration card. This is the largest scheme in terms of coverage and currently Central Government provides subsidised grain for 36% of country's population.
- Antodaya Ann Yojana: Under this scheme, the poorest amongst the poor households are identified through Gram Sabhas and are entitled to 35 kgs of grain per month at highly subsidised rates (Rs.3/kg for rice, Rs.2/kg for wheat). Destitute households having disabled, uncared old and widows are given preference. All households belonging to Primitive Tribal Groups (there are 75 such designated communities in India) are entitled to get benefit from this programme. Currently 2 Crore families across India are benefiting from this programme. This scheme has very high relevance for preventing starvation amongst the poorest households.
- Annapurna Yojana: Under this scheme, old and destitute individuals (but who are not receiving Old Age Pension) are entitled to 10 kgs of grain per month free of cost. As this scheme serves more as stop gap arrangement for the eligible persons left out due to gaps in the Old Age Pension scheme, the number of beneficiaries under this scheme is quite small (around 2-3 beneficiaries per Panchayat).
- APL grain: Under this scheme, Above Poverty Line (APL) households are entitled to 35 kgs grain per month but at not so subsidised prices.

Through their own resources, some of states (mostly in the South) have increased the subsidy on grain or have extended the programme to cover larger population or have increased the number of items available through PDS.

Main constraints being faced

i. Targeting : Since 1997, PDS has become targeted, i.e. as opposed to a universal PDS, food subsidies are now not available for a majority of the population. Targeting has reduced the state support to food security and has also weakened the grain procurement policies.

ii. BPL Identification : There are problems in identification of BPL households. The survey processes have been severely criticised for being faulty, arbitrary and non-participative. The definition of BPL itself has been highly contested. The biggest drawback as a result of this is that a huge proportion of actual poor have got left out of BPL lists though the number of non-poor who have sneaked into BPL is modest.

iii. Viability : The commissions available to fair price shops in most states are abysmally low, thus making the operations unviable if run honestly.



iv. Implementation Issues : PDS is the largest and perhaps the most important food security programme which also has the largest share of governance problems plaguing it especially in the EAG states (Chhattisgarh has been a notable exception). Poor households trying to access PDS often face irregularly opening fair price shops, non-availability of grain in the shop, lower than entitled quantities being given and higher prices being charged. Siphoning off of foodgrain before or after it reaches the shop is a common feature. Lack of community control and participation in running and monitoring the delivery chain is the root cause of poor functioning of PDS. In a large number of areas, this chain is completely controlled by private sector operators who have a strong vested interest.

PDS is the largest and perhaps the most important food security programme which also has the largest share of governance problems plaguing it especially in the EAG states.

Challenges for the district plan

- i. Provision for community mobilisation around PDS (through Kalajatha theatre troupes) should be there to ensure greater community awareness on PDS entitlements and also to encourage more and more people to access PDS. Plan can provide for proactive disclosure of information on PDS entitlements through wall paintings/notice boards etc.
- ii. Institutionalising Community Monitoring of PDS should be the next step.
- iii. Capacity building of Panchayats and women SHGs wherever they have been entrusted to run or monitor PDS, should be ensured.
- iv. The next BPL survey will take place in 2007-08 in most states for the 11th Five Year Plan. The District Health Plan should provide for awareness drives on survey processes. Especially, the Gram Sabha process for ratification of surveyed lists should be strengthened.
- v. For identification of beneficiaries for Antodaya Ann Yojana, the most vulnerable households should be mapped and Gram Sabha process should be strengthened.

EMPLOYMENT GUARANTEE ACT AND SCHEMES

Main features of strategy

- i. This is a successor to many employment guarantee schemes of the past- the Employment Assurance Scheme (EAS), the National Rural Employment Programme (NREP), Jawahar Rozgar Yojana (JRY), Sampoorna Grameen Rozgar Yojana (SGRY), the Maharashtra State Employment Guarantee scheme (EGS) etc.

- ii. In the current effort, the basis is a National Rural Employment Guarantee Act, 2005. Each State has to draw up an Employment Guarantee Scheme. The Act provides the legal guarantee of employment- thus ensuring that non implementation of the scheme is illegal and can be challenged in courts.
- iii. As per the Act, any adult who applies for work is entitled to be employed on public works within 15 days. However the work guarantee is limited to 100 days per household per year and applicable only to rural areas. The quota of 100 days can be shared between different members of the household. Every April 1st, the household is eligible for a new quota of 100 days.
- iv. The Schemes provide for eight categories of work being carried out- all of which in themselves are measures of food security. These are water conservation and water harvesting work, drought-proofing including afforestation, irrigation canals, irrigation facilities to weaker sections owning land, renovation of traditional water bodies, land development, flood control and drainage, and all weather roads. Any other work notified by the central and state government together could also be considered. The preferred works is to be drawn up by the State Employment Guarantee Council and are to be identified based on their ability to create durable assets.
- v. Beneficiaries go through a two step procedure for getting employment. First they register with the Panchayat, which they need to do only once in five years. For registration they get a job card on which a record of the work and payments they got can be maintained. Then whenever they require work, they can submit the application through the gram Panchayat or directly to the programme officer. The application for work is given a receipt and within 15 days they must be informed by letter and a public notice board, where they have to report for work. They must be paid at least the state minimum wage or higher wage where fixed so by the central government. Payment may be in cash or in food grain or in both – with cash component having to be at least 25%. Work would be provided as far as possible within 5 km. – and if not possible transport allowance is payable. If work cannot be so provided then the state has to provide an unemployment allowance.
- vi. Workers at the work site are eligible for safe drinking water, shade for children and periods of rest, first aid box and care for injuries and emergencies. Where there more than five young children accompanying the workers one of the women workers would have to be deputed for child care, for the same wage as others.

Main constraints being faced

- i. At the level of the Act and Scheme design itself there are problems. The limit of 100 days at minimum wages and that too for a household is too low for many areas. If households are large,



the effectiveness becomes even less. Further, urban areas are excluded and the programme has not as yet been extended to all districts – though all districts do have such a need.

- ii. There is little planning to use the work done to create durable assets of social priority. Also, most such work has a sizeable non labour component and the funds provided in the scheme for non labour components is not adequate. Pooling in from other schemes could be done as part of 'convergence'.
- iii. Special Provisions for persons with disability are not included.
- iv. Implementation remains poor – both due to poor flow of funds and due to lack of monitoring and regulation. Also many of the equity sensitive components are being left out. Though the Act contains 30% reservation for women, this is not often seen on the ground.

Challenges for the district plan

- i. There is a need to prioritise the scheme to areas of high need – and near starvation. Accurate information about levels of child malnutrition would help. If needed, one can in a crisis situation plan for relaxing the ceilings and provide more work – there is no ban on doing so as the act is only the minimum guarantee.
- ii. There is a need to ensure that the entire expenditure leaves behind very useful and durable assets for the community. Essential buildings, drains, roads etc that go to improve civil amenities are one set of priorities. Drought proofing and improving agricultural productivity is another.
- iii. Ensuring access to vulnerable households – handicapped, women headed households (especially if woman is pregnant or has young children or sick), chronic illness, migrants, etc. also need to be mapped out and drawn in.
- iv. Ensuring adequate public information and community monitoring so as to ensure full utilisation with no leakages/ corruption is another major part of the challenged.

ANNAPURNA YOJANA (ALREADY COVERED UNDER PDS)

ANTYODAYA ANNA YOJANA (ALREADY COVERED UNDER PDS)

ICDS PROGRAMME

Main features of strategy

- i. ICDS also known as Anganwadi programme was launched as a national programme in 1977. It has important objectives with respect to nutrition, health and pre-school education of children below six years. In addition, it aims to cater to health and nutrition needs of adolescent girls, pregnant women and lactating mothers.
- ii. One important component of ICDS is Supplementary Nutrition Programme (SNP). SNP formulations vary from state to state but most states provide hot cooked noon meals to 3-6 year children (wheat dalia in most EAG states) and uncooked take home rations (THR) for children below age three, adolescent girls, pregnant/lactating women. The central government provides Rs.1 per day per child for SNP and some of the states (like Tamil Nadu) supplement it through state resources.

In Chhattisgarh, the government has been providing the following SNP:

3-6 year children:

80 gram cooked wheat dalia per child per day
Thrice a week, the dalia is sweetened with jaggery
(Rs.125 is allocated per Anganwadi centre per month irrespective of enrollment)
8 gram oil per child per day (only in 98 out of 146 blocks in the state)

Children below 3 years:

Weekly take home rations:

480 gram wheat dalia (per week)
48 gram oil (only in 98 blocks)
Iron and Iodine fortified salt (1 kg/month)

Pregnant women, lactating mothers, adolescent girls:

Weekly take home rations:
960 gram wheat dalia (per week)
96 gram oil (only in 98 blocks)
Iron and Iodine fortified salt (1 kg/month)

Note: Only 3 malnourished (having weight below 35 kgs) adolescent girls (age 12-18 years) per Anganwadi centre are given SNP irrespective of actual no. of girls in the village.

Along with providing SNP, ICDS workers are supposed to measure malnutrition and provide nutrition counseling to families of the above sections at the Anganwadi centre as well as by making home visits.



Main constraints being faced

- i. Coverage: The ICDS programme covers less than half of the children even though there are no limiting conditionalities like BPL in it. The main reason is lack of enough Anganwadi centres due to inadequate budgets. There are less than 8 lakh centres for an estimated number of 14 lakh habitations in the country. This constraint though is likely to be less of a limiting factor in future. Under pressure from Supreme Court, 14 lakh centres are likely to become operational by 2008.
- ii. SNP Procurement Policies: The SNP provision is irregular in many parts. In most EAG states, private contractors supply SNP rations to ICDS. As a result, local communities have little role or control over supplies.
- iii. Lack of Oil in SNP: The SNP programme provides food which is often bulky or tasteless. Most importantly, it ignores the fact that children needs dense calories i.e. oil and fats. The provision of oil in ICDS is meager and highly irregular.
- iv. Nutrition Counselling by over-worked Anganwadi workers is hardly possible unless each centre has two workers instead of one.
- v. In absence of adequate nutrition counseling of families, only a small portion of the SNP provided as THR for children below age 3, actually reaches the intended child, as it gets consumed by all members of family especially in poorer households.

Challenges for the district plan

- i. Identification of hamlets which do not have access to Anganwadi centres: New Anganwadi centres should be demanded for hamlets having more than 40 children below age 6 (likely in most hamlets having population around 40-50 households). Preference should be given to Dalit hamlets. New centres can be demanded even for smaller hamlets in situations, especially in hilly/forested areas where a SC/ST dominated hamlet is more than 2 km. away from the nearest Anganwadi. Otherwise for smaller hamlets, plan should be made to link them up with nearest Anganwadis.
- ii. As most states are likely to shift to local procurement of SNP through Panchayats or Self Help Groups, their capacity should be built community monitoring of SNP should be institutionalised.
- iii. Awareness creation plan around provision of Oil in SNP and feeding the child's share only to the child should be promoted through nutrition counseling by CHWs. CHWs like ASHA should supplement the Anganwadi worker's effort especially in nutrition measurement and counseling.

SCHOOL MID DAY MEAL PROGRAMME

Main features of strategy

- i. The programme follows the example set up by Tamil Nadu school meal programme which is more than thirty years old. Many of the tribal blocks (also known as ITDP- Integrated Tribal Development Programme blocks) in the country had this programme since mid 1990s. The programme took a national shape since 2002 after significant judicial directives and public campaigns.
- ii. The programme aims to reduce 'classroom hunger'. Apart from food security, the programme has important social objectives like increasing school enrollment and attendance, building social cohesion and reducing 'untouchability'. The programme covers 12 Crore school going children and has got operationalised all over the country including some of the otherwise poorly performing EAG states.
- iii. The programme has managed to overcome middle class opposition and prejudice against the school meals. The programme has also achieved over a period of time, a strong political support from mainstream parties. The programme has legitimised and attracted significant participation of community especially mothers in provision or inspection of meals.
- iv. The central government now provides Rs.1.50 (plus 100 gram grain) per child per day for all state run or state aided primary schools. Many state governments match or supplement this amount through state resources and some have extended it to include Middle school children (class 6th to 8th). With these resources some of the states are able to provide a wholesome menu to the schoolchildren.

Main constraints being faced

- i. Though the regularity of the meals has improved in most states, the quality and variety in the meals menu is still an issue. While states like Tamil Nadu are providing a menu with variety (and eggs twice a week), many states are yet to improve quality.
- ii. The implementing agencies at school level (whether teachers, Panchayats, women's self help groups etc.) often receive funds with delays resulting in poorer quality of food being provided or sometimes even interruptions. Most of the delays occur at Janpad Panchayat level downwards.



Challenges for the district plan

- i. The plan should include community mobilisation around mid-day meals.
- ii. Community monitoring should be institutionalised.
- iii. Provision of eggs should be encouraged through Panchayat level plans.

SOCIAL SECURITY PENSIONS

Main features of strategy

- i. This set of programmes provide for monthly pensions to the uncared old, disabled and widows who do not have adequate means of income (usually measured through quantity of land owned). In most states, the beneficiary lists are recommended by Gram Sabhas and finalised by Zila Panchayats.
- ii. The national scheme provides for Rs. 200 pension per month for the uncared old (above age 65), widows (above age 50) and the disabled having inadequate income.
- iii. Some states through their own resources are supplementing the pension amount provided by Central Government and have also relaxed the age criteria to extend coverage (e.g. in Chhattisgarh widows irrespective of age and old people above 60 years of age are eligible for pensions).

Main constraints being faced

i. Coverage: The coverage of the programme is quite inadequate mainly due to low fund allocation by central government. A large number of persons though eligible get left out of the programme. Generally, each Panchayat is sanctioned a fixed number of pensions irrespective of the number of deserving cases present in it.

ii. Identification of beneficiaries: as the eligibility criteria has relatively vague components like the person should have inadequate income, the old must be 'uncared' etc., the scope for wrongful selection increases. The quality of selection is directly proportional to the power of the Gram Sabha system in that area.

iii. Certification of disabled: A large proportion of disabled get left out as large proportion of them are yet to get disability certificates. Often the required Medical Board is organised too infrequently or at too far a place for the disabled to reach. The disability certification camps are also extremely rare and inadequate communication effort goes into them.

iv. Delays and corruption: Despite Supreme Court orders directing state governments to ensure delivery of pensions to beneficiaries by the 7th of every month, there are frequent and common delays in the pension reaching the needy person.

Challenges for the district plan

- i. The plan should include social mapping exercises which help in building a village consensus on selection of the deserving cases. These cases should be put up before the Gram Sabhas.
- ii. Village health committees should be mobilised to provide volunteers to help the uncared old in keeping track of the amounts received.
- iii. Ensuring that Village health committees start monitoring the pension scheme.
- iv. The district health plan must include Disability Certification Camps and ensure adequate advance communication about the planned events reaches the villages. It should be ensured that the specialists on the Medical Board reach and within a specific time.

WELFARE INSTITUTIONS FOR SPECIFIC VULNERABLE GROUPS

Main features of strategy

- i. A variety of institutions are supported by Social Welfare departments to cater to uncared or homeless: Night shelters for urban homeless and street children, orphanages and child adoption centres, nari niketans for homeless women, half way homes for women in difficult circumstances, juvenile homes for children in conflict with law, schools for visually or other forms of disabled etc.
- ii. While some institutions provide for shelter or stay, some also cover food, education or vocational training kind of needs.

Main constraints being faced

- i. Coverage:** The number of such institutions is woefully low compared to the need. Most institutions are also poorly funded and as a result provide only some of the necessary components.
- ii. Staff Skills:** Staff running these institutions need to be highly skilled but which continues to be a big constraint in functioning of institutions.



Challenges for the district plan

- i. The current approach is to rehabilitate the vulnerable persons within community itself, to the extent possible. Institutions should be an option only for persons who still get left out of community based rehabilitation.
- ii. The district plan should provide for greater community basing of such institutions. Community volunteers should be mobilised to help around in institutions.
- iii. The vulnerable groups themselves should be organised by encouraging volunteers from amongst the specific vulnerable groups themselves.

FOOD GRAINS FOR STATE RUN RESIDENTIAL SCHOOLS/HOSTELS

Main features of strategy

- i. This programme is operational largely in tribal dominated areas. It is meant to induce greater number of tribal children (and these days mainly girls) into high school and intermediate level education.
- ii. Government provides free stay and food in hostels attached to these schools.

Main constraints being faced

- i. The coverage is low as the number of such institutions is less than required.
- ii. The quality of food is a problem even though higher priority is given for grain to be sent there in time.

Challenges for the district plan

- i. The village plans should identify drop out girls who can be linked up with residential schools.
- ii. Community involvement in providing and inspecting a wholesome menu should be encouraged.

VILLAGE GRAIN BANK SCHEME

Main features of strategy

- i. This is a programme being implemented mainly in some of the tribal villages.
- ii. In most states, the programme provides for 4000 kgs of grain corpus being provided for an average of 40 BPL families per grain bank (i.e. 100 kg grain per BPL household). The provisions may vary from state to state.
- iii. The programme also provides for storage equipment for the grain.

Main constraints being faced

- i. Coverage: Programme coverage is too low as the number of grain banks is still highly inadequate. Secondly most schemes limit participation only to BPL households, thus excluding large number of the needy.
- ii. Capacity Building for democratic group processes: Often, heterogeneous groups with inadequate cohesion, experience and skills are given the grain banks to run. As a result, decision making processes become undemocratic and conflicts arise also leading to low repayment of grain.
- iii. Grain bank programmes tend to exclude the poorest and landless households as their ability to repay the grain is uncertain.

Challenges for the district plan

- i. The district plan should map the most needy villages for the scheme.
- ii. Capacity building of groups running grain banks should be ensured.
- iii. Inclusion of the poorest with relevant relaxations in repayment norms should also be ensured.



Experience of Community Grain Banks

There is plenty of experience available in terms of promotion of community grain banks by government as well as NGOs. Some experiments have been tried in tribal areas around revival of traditional grain banks. Others have focused on promoting traditional grains like millets. Many have used SHG like mechanisms to provide grain on credit. There is a wide variation in the success enjoyed by these endeavors. Success is more common amongst models having strong group cohesion, focus on more popular grains and pragmatic repayment options.

Two innovative forms of Grain Banks have been attempted with significant success in Andhra Pradesh by state government in collaboration with NGOs (Deccan Development Society and Centre for Environmental Concerns).

These schemes are:

Rice Credit Line: Many of the poorer households are not able to purchase even BPL rice from PDS due to lack of cash during periods when rice is available. Rice credit line in Andhra Pradesh found a way to overcome this. Under this programme, each BPL household was provided 50 kgs. of rice at its doorstep every month and it could pay for it over the period of one month. The scheme enjoyed considerable success and the repayment rates were also good. Andhra Pradesh government started it in Chittoor district and has now expanded to five districts.

Work for Food programme: In the conventional Food for Work programme, some of the poorest households are not able to participate as the wages would be paid at least a fortnight after doing the work. Instead such households would choose to work for much lower wages with private employers mainly because they pay daily. Andhra Pradesh, a way out was found by providing 50 kg. of grain to each family in advance and allowing it to repay by working in government works over a period of one month. This way they converted 'Food for Work' into 'Work for Food' programme and enabled the poorest families to participate and benefit from state run wage employment works. This experiment has potential to be extended to National Employment Guarantee Programme.

LOCAL INITIATIVES FOR FOOD SECURITY

In addition to the above state run programmes, there are a large number of very innovative local schemes- usually funded by a major funding agency which has done good work in this area.

These include programmes which have linkages with interventions to enhance livelihoods. We note that the earliest effort in community health workers programme – the Jamkhed Programme had a major thrust on farmers club and livestock care also. The RUHSA community health programme of Vellore also had a major emphasis on livelihood development. However most schemes of livelihood development are not linked to health programmes as such. Broadly these can be categorised into two groups.

One group relates to natural resources management. These include watershed programmes, the joint forest management programmes, the tank rehabilitation and irrigation management programmes, and programmes related to animal husbandry and fisheries that provide more access to income and food for the poor. Such programmes are important in all rural contexts but are particularly urgent in tribal areas where the natural resource base on which tribal livelihoods depended is fast depleting.

The other relate to enterprise development, either of manufacture or in services, where the poor are assisted to start and manage enterprises as a group or by themselves.

Another set of interventions that are linked to food security are financing schemes for the poor. The most well known of these are the large networks of women's self help groups. Community Banking Schemes are also in place in some areas. These schemes provide loans that the poor are able to access for meeting their immediate cash needs and to enhance their livelihoods.

FOOD SECURITY IN THE DISTRICT PLAN

The major elements are to address the link between hunger and health.

The Food Security District Plan has its own distinct place – it is not merely an addendum to the district health plan. If we recognise the district health plan to be a sub-plan of a larger district planning effort then one can make food security another sub-plan of it. However the district health plan needs to indicate synergies.

In this regard the district plan for food security should:

- a) Map hunger, malnutrition and food insecurity by geographic area, by social group and by vulnerability. The basis of such mapping should be statistics of child malnutrition and malnutrition in the school child both of which are easily available. Other than this, a few carefully done village studies using rapid appraisal methods and focus group discussions would be needed to identify vulnerable areas and vulnerable groups. Registration for employment guarantee scheme, actual estimates of BPL families, number of those eligible for Antyodaya card are other very important indicators. In practice there are informal and unofficial ceilings on how many people can be registered per scheme per Panchayat/village. These need to be disregarded and actual eligibility needs to be registered. We note that some diseases like tuberculosis are also good indicators of hunger. Though there would be no clear correlation that can be used for mapping, disease and mortality data suggests where one must look for hunger. Once such a map is developed (or a table showing the levels of vulnerability in each Panchayat) and the sections which are vulnerable within a Panchayat are identified then one can plan for both livelihood intervention programmes and food security programmes in this area. Note there are many situations when the immediate need would be to open "free kitchens" - if imminent or actual starvation is detected in the process of such mapping.
- b) Assess the health of the different food security schemes. The public distribution system, the employment guarantee scheme, the ICDS and the mid day school meal programme are the four central pillars of food security schemes and a detailed assessment of their performance comparatively between the Panchayats and between hamlets of the same Panchayat needs to be done.



- c) Build mechanisms at the Panchayat level to improve the schemes and to address social exclusion. These could take the form of specific measures to improve access to hamlets which are most vulnerable and where access to food security programmes are most limited.
- d) Introduce nutrition rehabilitation programmes and a larger “diet” provision for inpatients and hospital based or hospital linked nutrition rehabilitation centers in affected areas. Such a diet programme should not only be able to rehabilitate the starving child who is usually sick, but also provide some food support to escorts till the child is retrieved. Best practices in this regard were discussed in Book 3.
- e) Bring in forces like NGOs or motivated community groups or peoples movements who are working for the interests of marginalised sections to support the programmes and address issues of social exclusion to be able to negotiate across current power equations.

The use of Panchayat level indicators to measure and monitor base lines and progress along with hamlet level disaggregation of this data are key to making such a plan. Strengthening Panchayati Raj Institutions and building in equity sensitivity into their functioning is another key element of making and successfully implementing a plan for nutrition and food security.

The Public Distribution System, the Employment Guarantee Scheme, the ICDS and the School Mid Day Meal Scheme are the four central pillars of food security schemes!

I. Review Questions

1. What do we mean by BMI? How is it used.
2. When do we diagnose starvation in a population?
3. What are the constraints on public distribution system as a strategy of food security?
4. What are the food security provisions for specific vulnerable groups?
5. What potential do grain banks have for provision of food security? What are the types of grain banks and what is the village grain bank scheme?

II. Application Questions

1. In all these schemes corruption eats into the schemes reducing the benefits that are to reach people. Why are these schemes in particular so corruption prone? What can be done about it?
2. There is a general criticism that the government cannot afford such schemes and that they would

make people lazy. On the other hand if there is economic growth there would be more jobs and such schemes would be unnecessary. Why is such a view considered an elitist view of privileged sections and generally rejected by democratically minded persons.

III. Project Work

1. Assess the situation in the functioning of the public distribution system in one or two villages. Meet a cross section of people to make this assessment. Whom would you meet?
2. Estimate the extent of hunger, malnutrition and starvation in one block of your district. What all secondary data would help you? Obtain the secondary data needed. Also if possible collect primary data by rapid appraisal and/ or household surveys in one village? How would you proceed to do this?



Lesson FOUR

District Planning for Comprehensive Early Childhood Care



In this lesson we shall discuss:

- What comprehensive early childhood care and development is, why its provisioning is a basic right and its impact on health goals
 - A brief history of the ICDS and the efforts to strengthen it
 - The objectives and activities of the ICDS programme with respect to above needs
 - Current status of the ICDS
 - Main gaps in achieving these objectives
 - Constraints that lead to such gaps
 - Synergies between NRHM and ICDS that could help achieve the NRHM goals
 - Maternity Entitlements and Creches as other ECCD services
- 

COMPREHENSIVE EARLY CHILDHOOD CARE AND DEVELOPMENT AS A BASIC RIGHT

Widespread recognition that children are individual citizens with rights is relatively new. It is even more recent than the articulations of the rights of women. In fact, the first well recognised international description of the rights of the child is found in the 'UN Convention on the Rights of the Child' that came into force in 1990.

Traditionally, children seemed to be acknowledged by society and social policies only when they were seen as eligible to be entering formal school, when arrangements would have to be made for education. Younger children have been considered the sole responsibility of families, and within that, of mothers. Therefore, though they partook of the poverty and other handicaps that the family faced, they were not identified as individuals who have rights and who may have special needs for which the family may require specific support. In policies related to development, the very young child might have come into focus only when for some reason they lost their families – as orphans or destitutes and then too, as objects of charity.

However, though this mind-set continues in part, in recent times, a lot of research has happened around the area of Early Child Care and Development (ECCD) or Early Child Care and Education (ECCE) – terms which describe the age group from birth to about 8 years, to show its special significance. It has become well understood that this age group forms the basic foundation of the human being in every possible way. There are number of key development processes that happen at this age:

- a. Brain growth is at its most rapid in the first two years of life
- b. This is the time when the fundamental abilities of language and learning are developed
- c. This is a critical time for the development of many features of personality.
- d. All the three above have important implications on future education. This is also the time when education begins.
- e. In terms of physical growth also, as we know, this is the age group most vulnerable to malnutrition and death from common childhood illnesses. Any damage to these processes of normal and optimal growth and development is hard to make up in subsequent years if at all possible and puts unnecessary and preventable costs upon society in terms of social development as well as money.

Despite the critical nature of this age group, the reality is that children of this age group are very neglected in India. We know that almost 46% of children in this age group are malnourished and that almost 5% of our children die in this age group. Clearly, inputs must be made at this stage itself for a positive effect on the health, education of the entire society. More than that, it is a case of protecting and promoting the rights of one third of the country's population.



However, it is equally important to understand that interventions in any specific aspect of child health or child development cannot be made and do not work without an overall environment of 'care'. This is becoming

very clear through our mostly unsuccessful attempts to improve the nutrition of very young children. Not only does this require all the physical elements of safety and sufficiency of food, safe water, space, etc., the most important requirement is the presence of well informed, caring adult care givers; whether family members or others, who are able to put time and energy and affection into caring for children, feeding them, playing with them and promoting their growth and development. Thus there is a direct relationship between the situation of ECCD and the NRHM goals of reducing child mortality and underlying malnutrition.

We have described how poverty and gender affect the care of children within families in detail in Book 3. If this environment of care is not possible through the family because of their circumstances, then support must be provided to the business of caring for very young children. In addition, for every child of the pre school age, i.e of 3 to 6 years, there is requirement of a centre-based play-school or preschool institution. These are now recognised as a part and parcel of educational services that the State is committed to provide. Every child has a right to preschool services. Every child has a right to preventive, promotive and curative health care services and the right to food security at these ages. In addition vulnerable families require support for child care. Working mothers too require such support and indeed it is a necessary condition of facilitating women's participation in social and economic activity and of women's empowerment. The enjoyment of all these basic rights requires that their provisioning is seen as an essential public service- like the provision of health care or education and not merely as a welfare measure for the poor. It is true that the development of such a norm – of rights over public services is relatively recent – but that is what development should mean.

The enjoyment of all the basic rights of the child requires that the provisioning of early childhood care and development services is seen as an essential public service, like the provision of health care or education, and not merely as a welfare measure for the poor.

Looking at the discussion above, it is easy to see that if care is to be provided to very young children in the given social and economic circumstances, services need to be provided to support the family all along the way. This translates, in terms of schemes and programmes, into services and entitlements like maternity entitlements, crèches and day care services and play school / balwadi arrangements along with processes to inform and counsel families at every stage of the child's

growth and development and specific health care arrangements. Some of these requirements are met through the Anganwadi scheme or the ICDS, while other complementary arrangements are largely missing. We shall discuss these in detail in the following sections.

INTEGRATED CHILD DEVELOPMENT SERVICES SCHEME (ICDS)

The Integrated Child Development Services scheme or the ICDS does not purport to offer all these services. However it is the most important government scheme in this area of public services. The ICDS was envisaged and started in 1975 as such a system of offering support to the family by way of voluntary and honorary help by the community as a 'welfare' scheme- and not as we now view it, a public service. This is also understood from the fact that the Anganwadi worker was considered a volunteer, not a formal worker, to be paid an honorarium rather than a wage, as well as the general attitude to the Anganwadi centre as a charitable 'food distribution' service. However, as understanding of and demand for a comprehensive policy on ECCD inclusive of components of preschool education and health and nutritional services has grown, the ICDS has taken on a fresh and urgent significance in today's day and age. As an innovative and far sighted scheme at least as far as its objectives are concerned, it offers great scope for proper implementation and through it, a real impact on the status of ECCD in India, especially if it receives the kind of support and convergence with other systems of nutrition, health and education that we will be discussing in greater detail in this lesson.

A BRIEF HISTORY OF THE ICDS

This innovative, world renowned and country wide scheme, otherwise known as the Anganwadi Programme, was started in 1975. It was drafted as a comprehensive approach to child care, encompassing areas of nutrition, promotive health care and learning through play. Its activity focus was on growth monitoring and the elimination of child malnutrition through food supplementation for the young child. A population norm of one centre per 1000 population was to be used to open Anganwadi centres to fulfill the objectives of the scheme. It was and is the only major scheme for children in the important and vulnerable age group of birth to 6 years of age and the only public system for preschool operational in the country.

However, in most parts of the country in subsequent years the scheme was not taken too seriously. Few Anganwadi centres were opened as per the population norms and even fewer made any attempt to cover all the objectives of the scheme. Even in the focus areas of growth monitoring and food supplementation



there were numerous gaps. At the same time, there were pockets like the state of Tamil Nadu where the 'Anganwadi' scheme flourished, and in such areas the results have been visible in terms of lower malnutrition and child death rates.¹

Today partly due to persistent civil society action and partly due to a greater understanding of the essential nature of early childhood care, it has come to be accepted that this service must be provided by the State to all children as their right. However, the narrow base on which such acceptance rests is signified by the fact that the key steps forward were forced upon the government by judicial intervention rather than by the spontaneous incorporation of such a priority into the Planning Process. The Supreme Court's intervention began (PUCL vs. Union of India and Others, Writ Petition (Civil) 196 of 2001) as a response to the petition to protect and promote several food security schemes in the country including PDS, Mid Day meal scheme (MDMS) and the ICDS amongst others during a spate of starvation deaths in Rajasthan. The rulings that have followed, have strongly supported the ICDS by instructing the Government to universalise it, and provided a new impetus to the various groups who have been struggling for its rejuvenation, expansion and improvement, such as the groups working on Early Childhood Care and Development- the Right to Food Campaign and Jan Swasthya Abhiyan. (More details are available about these campaigns in Book 7).

In the year 2004, there was a spate of favourable developments. The Supreme Court orders of April and October 2004 gave a useful wake-up call to the government. The Universalisation of ICDS was included in the National Common Minimum Programme of the UPA government in May 2004. The National Advisory Council submitted detailed recommendations for achieving "Universalisation with Quality" in October 2004. As a result, the expenditure of the Central Government on ICDS nearly doubled in the Union Budget of 2005-06. This in turn made many State governments to take the ICDS more seriously. However, much still remained to be done to achieve the goal of 'universalisation with quality and equity'.

It was in such a context that the landmark Supreme Court judgement of December 13, 2006 was delivered. This judgement sets the directions for the future by stating most clearly and powerfully:

- (1) *Government of India shall sanction and operationalise a minimum of 14 lakh AWCs in a phased and even manner starting forthwith and ending December 2008. In doing so, the Central Government shall identify SC and ST hamlets/habitations for AWCs on a priority basis.*
- (2) *Government of India shall ensure that population norms for opening of AWCs must not be revised upward under any circumstances. While maintaining the upper limit of one AWC per 1000 population, the minimum limit for opening of a new AWC is a population of 300 may be kept in view. Further, rural communities and slum dwellers should be entitled to an "Anganwadi on demand" (not later than three months) from the date of demand in cases where a settlement has at least 40 children under six but no Anganwadi.*

1. See also *Focus On Children Under Six* (the "FOCUS report"), prepared by Citizens' Initiative for the Rights of Children Under Six

- (3) *The universalisation of the ICDS involves extending all ICDS services supplementary nutrition, growth monitoring, nutrition and health education, immunisation, referral and pre-school education to every child under the age of 6, all pregnant women and lactating mothers and all adolescent girls.*
- (4) *All the State Governments and Union Territories shall fully implement the ICDS scheme by, inter alia,*
- (i) *allocating and spending at least Rs.2 per child per day for supplementary nutrition out of which the Central Government shall contribute Rs.1 per child per day.*
 - (ii) *allocating and spending at least Rs.2.70 for every severely malnourished child per day for supplementary nutrition out of which the Central Government shall contribute Rs.1.35 per child per day.*
 - (iii) *allocating and spending at least Rs.2.30 for every pregnant women, nursing mother/adolescent girl per day for supplementary nutrition out of which the Central Government shall contribute Rs.1.15.*

Underlining its seriousness the Court has summoned Chief Secretaries of many defaulting states to appear before it to explain why they have not followed previous orders. This action of the Court also builds considerable seriousness and even an element of compulsion on governments to implement the ICDS in a more holistic manner.

Though there are still many areas that need to be included to make it comprehensive, there is no doubt, that as an example of rights based action by civil society groups in order to change government policy in a pro-poor direction, this is one of the high points.

Objectives of the ICDS

1. To improve the nutritional and health status of children below the age of six years.
2. To lay the foundation for the proper psychological, physical and social development of the child.
3. To reduce the incidence of mortality, morbidity, malnutrition and school dropouts.
4. To achieve effective coordination of policy and implementation among various departments to promote child development.
5. To enhance the capability of the mother to look after the normal health, nutritional and developmental needs of the child through proper community education.

DESCRIBING THE ICDS

To achieve its objectives, the ICDS has planned many activities including those related to health and nutrition. These are detailed below. Because the health and nutrition needs of a child cannot be addressed in isolation from those of his or her mother, the programme also extends to adolescent girls, pregnant women and nursing mothers.



A. Nutrition

1. **Supplementary Nutrition (SNP):** The nutrition component varies from state to state but usually consists of a hot meal cooked at the Anganwadi, based on a mix of pulses, cereals, oil, vegetable, sugar, iodised salt, etc. "Take-home rations" (THR) are provided for children under the age of three years.
2. **Growth Monitoring and Promotion:** Children under three are weighed once a month, to keep a check on their health and nutrition status. Elder children are weighed once a quarter. Growth charts are kept to detect growth faltering.
3. **Nutrition and Health Education:** The aim of Nutrition and Health Education is to help women aged 15-45 years to look after their own health and nutrition needs, as well as those of their children and families. Nutrition and Health Education is imparted through counseling sessions, home visits and demonstrations. It covers issues such as infant feeding, family planning, sanitation, utilisation of health services, etc.

B. Health

1. **Immunisation including vitamin A:** Children under six are immunised while pregnant women are immunised against tetanus. This is a joint responsibility of ICDS and the Health Department. The main role of the Anganwadi worker is to provide the venue for the immunisation session at the centre and assist health staff (such as the ANM) to maintain records, motivate the parents, and organise immunisation sessions.
2. **Health Services:** A range of health services are supposed to be provided at the Anganwadi Center facilitated by or delivered by the Anganwadi Worker. These include:
 - a. Health checkups of children under six
 - b. Ante-natal care of expectant mothers
 - c. Post-natal care of nursing mothers
 - d. Management of under-nutrition,
 - e. Deworming and administration of micronutrients – especially iron and vitamin A where needed
 - f. Treatment of minor ailments

3. **Referral Services:** This service attempts to link sick or undernourished children, children with disabilities and other children requiring medical attention with the public health care system. Such children are referred by the Anganwadi worker to the medical officers of the Primary Health Centres (PHCs).

C. Preschool Education

Preschool Education : The aim of preschool education is to provide a learning environment to children aged 3-6 years, and early care and stimulation for children under the age of three. Preschool education is imparted through the medium of "play" to promote the social, emotional, cognitive, physical and aesthetic development of the child as well as to prepare him or her for primary schooling.

Pregnant and nursing mothers as well as adolescent girl children are also to receive supplementary nutrition as well as services such as health education, antenatal care, immunisation and iron supplementation through the ANM.

The important element of early child hood care that is as yet not built into the ICDS and has almost no provision outside it, is the role of crèches and day care centers for children below 3. Also in the design and timing of the Anganwadi such a role is not envisaged even for children between 3 and 6.

THE CURRENT STATUS OF THE ICDS AND THE MAIN GAPS IN PROGRAMME IMPLEMENTATION²

In terms of overall outreach, currently almost every block in the country has an Anganwadi. About 10 lakh Anganwadis have been sanctioned with about 7.5 lakhs functional. These, however, cater to only about one fourth of the child population under 6. The estimated requirement, as directed by the Supreme Court, is a minimum of 14 lakh Anganwadis provided they are able to cover 'every child' in their area, including the usually left out children under three.

Allocations to the ICDS have increased over the last few years and look large. Placed in perspective, the budget of 4000 crores in 2005-6 is less than a rupee per eligible child per day and about one fifth of one percent of the GDP.

As has been mentioned before, there are large variations between various states in the functioning of the ICDS. Just as an example, we can look at differences between the states of Uttar Pradesh and Tamil Nadu.

2. For more details refer to the Citizen's Initiative for the Rights of the Child (2006): *Focus on Children Under Six (FOCUS) Report*, Right to Food Campaign. A part of the lesson has been adapted from here.

**Table 4.1: Comparison of the ICDS in Uttar Pradesh and Tamil Nadu**

	Uttar Pradesh	Tamil Nadu
Allocations for SNP, 2002-2003 (per person per day)	Rs. 0.51	Rs. 1.69
Supplementary food was not being provided at the time of the survey	25%	0%
Food distribution is "regular" according to mothers	54%	100%
Preschool Activities taking place according to mothers	36%	89%
Regular weighing at the Anganwadi according to mothers	40%	87%
Effectiveness of child immunisation is "low" or "very low"	44%	12%
Own building	13%	88%
Malnutrition	47%	33.2%
Complete immunisation status	23%	80.8%
IMR (per 1000)	73	31

Source: FOCUS Report, 2006 and National Family Health Survey, 2006.

However, it must also be said that the situation in the poor performing states has been improving in the last few years. The important thing this illustrates is the fact that Anganwadis can be made to function well and they do have impact upon the health and well being of children.

Therefore, there is no call to be despondent about the ICDS as a 'lost cause' as some would suggest, but to continue to support it and push its performance as a good vehicle for ECCD.

MAIN GAPS IN ICDS

On the whole, most ICDS centres do run a programme in which the following are available:

- Providing supplementary nutrition though its quality and regularity is an issue.
- Growth monitoring of children i.e weighing children, though even this is not done with a great deal of reliability.
- Immunisation

The main gaps in the programme, however, relate to the following:

1. the preschool programme is weak or non existent.
2. home visits, nutritional counseling to families is weak.
3. supplementary nutrition reaching below threes is weak.
4. Supplementary nutrition programme is irregular and of poor quality- often take home rations are given instead of serving cooked food at the center.
5. supplementary nutrition reaching lactating mothers, and pregnant women and adolescent girls is weak – almost non existent.
6. health checks are rare or perfunctory.
7. health referrals do not generally occur by the agency of the Anganwadi.
8. identification of malnourished children is not accurate with Grade I and II children often reported as normal and Grade III and IV under-reported.
9. in many states the coordination between AWW and ANM is still insufficient and large number of scheduled immunisation days are not held.
10. Programmes for adolescent girls do not happen.
11. poor outreach to children of dalit communities and instances of actual discrimination also occur.
12. the usual location of the Anganwadi is in the main (usually upper caste) habitation of the village and the surrounding hamlets (often inhabited by economically weaker and marginalised sections) find the main hamlet too far.
13. no outreach to marginalised groups specially children of migrants and children with disability.
14. lack of accountability of the service to its beneficiaries.

MAIN CONSTRAINTS IN ACHIEVING THE ICDS OBJECTIVES

There are many problems in the design of the scheme itself as well as its implementation which lead to the gaps identified above. Most of these are within the purview of the Department of Women and Child Development. However, they are being mentioned here since it is possible to overcome some of these constraints through convergence and careful district level planning and support from the department of health. As we will see below, the ASHA offers a big potential in supporting the objectives of the Anganwadi in this context.

1. Limits placed upon outreach and coverage: Though the Anganwadi is to cater to a population of 1000, in actual fact, each Anganwadi is 'permitted' to enroll only 40 children (3-5yrs) at the centre, 40 children under three, 20 pregnant / nursing mothers and 2 adolescents by norm. Thus the concept of 'universal coverage' cannot be put into practice. Since this norm is itself informal and unofficial, but nevertheless is firmly enforced, there are no guidelines as to how to choose this



short list. Within the power equations of the village, the final list of beneficiaries are often not the ones who most need these services. Such a norm would now be illegal too.

2. **Infrastructure, Space, Rent, Materials:** If an Anganwadi is to run a preschool programme with 40 children aged 3 to 5 years as well as supply hot cooked food, there is a minimum requirement of space, kitchen, toilets, running water and play material that is hardly ever met. Many Anganwadis do not have their own buildings and are run in ramshackle spaces which are not fit for children. Urban Anganwadis are provided rental allowances that are too low to rent out large enough space and are often run from the corner of the Anganwadi worker's hut.
3. **Timings and Location:** The timings and location of the Anganwadi need to suit the convenience of busy and working mothers. In some situations, locating the Anganwadi with the primary school has been helpful, in others it is better placed within the hamlet it is expected to cater to. Urban slums and SC/ST communities have been poorly 'serviced' in the past and the current directive is to open new Anganwadis with priority to these areas.
4. **Human Resource Issues:** These are many and complex. The Anganwadi worker (AWW) and helper are expected to perform important and complex tasks including pre school education, but they are not recognised as regular workers and not even paid a minimum wage. Their training to cope with these programmatic requirements is also insufficient. There is little support from the cadre of supervisors within which there are also large staffing gaps. The AWWs have to perform many administrative activities, fill in multiple records and even assist in a number of unrelated activities such as census, election duty and malaria control. This leaves little time for home visits or even running a centre regularly and well.
5. Inadequate budgets for supplementary nutrition and for all the activities is also another major problem.
6. Irregular food supplies, corruption and siphoning off of food supplies is another key problem.
7. Poor support from and coordination with the Health Department for the health related activities. (discussed in detail below)
8. Poor community support and participation

SYNERGIES BETWEEN NRHM AND ICDS

There is a clear connection between the objectives of the ICDS and the NRHM as regards reducing child mortality, reducing child malnutrition and improving child health.

In addition to the already existing cadre of the Anganwadi worker and the female multipurpose worker (also referred to as ANM), the NRHM has introduced a village level women health volunteer called ASHA. If all three of these functionaries coordinate their action there could be considerable synergy that would help in achieving these goals. On the other hand if there is poor coordination there would be needless duplication and even contestation of each others roles adversely affecting the programme.



Currently convergence is planned for around the immunisation session where the AWW is seen as helping the ANM achieve her goals. The ANM is expected to offer referral services to the AWW thereby enhancing the credibility and usefulness of the Anganwadi center. The AWW is also expected to be able to deal with minor illnesses and be equipped with a medical kit. In actual fact, the only service that happens by way of any convergence is that of immunisation services at the Anganwadi for which the AWW collects eligible children and the ANM delivers the immunisation. There is no systematic system for referral of children from the Anganwadi to the PHC just as there is none between the subcentre and PHC, and medical kits are scarcely to be found. AWW training also does not seem to empower them to deal with common illnesses. All in all, the Anganwadi centre has begun to be seen as a place for distribution of supplementary nutrition with some role in achieving immunisation targets.

Table 4.2 : Role definition and

Expected Outcomes	Main AWW contribution	Main ANM contribution
Increased Immunisation coverage	1. Keep center ready for holding session. 2. Keep track of which child is due and encourage families to attend	Bring Immunisation materials on scheduled day. Adminster immunisation
Health And Nutrition education	1. Talks to mothers bringing children to center. 2. Identifies and counsels families with severe malnutrition.	1. Reinforces messages where they come into contact with family for other illness
Elimination of Malnutrition	1. Supplies supplementary nutrition to all 2. Special effort on grade I and II malnutrition 3. Prompt referral for grade III and IV	1. Organises/conducts health check ups and where needed institutional care for sick and severe and all grade III and IV malnourished. 2. Reinforces nutrition measures whenever comes into contact with family
Management of Common Illness	1. Provides first contact care to those who seek her services. 2. Provides regular deworming and iron tablets	Sees persons referred by ASHA or AWW.Has ability to see more diseases then the others – but is less available for common illness. Trains and supports ASHA
Care in pregnancy	1. Venue for provision of antenatal care. 2. Keeps tract and encourages appropriate health seeking behaviour. 3. Ensuring supplementary nutrition	1. Provides antental care 2. Provides skilled assistance at delivery. 3. Provides post natal care on referral
Care in new born	Weights baby, visits to assist, supplementary nutrition to lactating mother, promotion of breastfeeding	If she conducted delivery would provide immediate essential newborn care
Care in adolescence	Reaching supplementary nutrion	
Social Mobilisation	Arranges to conduct immunisation session as health and nutrition day	Participated in nutrition and health day – providing immunisation and health care



At the other end, the health care services leave all dealings with the Anganwadi and the health objectives of the Anganwadi to the ANM alone. Monitoring of the ANMs role in supporting these health objectives is limited to monitoring of the immunisation function. Health care services have not traditionally involved themselves in the management of malnutrition. In contrast the Bal Shakti Yojana (Best Practice described in Book 3) offers a good potential model for convergence.

With the introduction of ASHA the roles of ANM, AWW and ASHA and their respective role definition for synergy on child health could be described thus:

synergy at the village level:

Main ASHA contribution	Constraints
Keep track of children given and those missed. Visit families and talk to them. Accompany them to the session	1. Schedule not conveyed or not adhered to 2. ASHAs not paid incentive compensation – so cannot accompany due to loss of livelihood,
1. Is able to visit family and counsel all members at their household.	
1. Ensure children attend AWW, 2. Enables special local arrangements in distant hamlets 3. Counsels families with normal children in 6 to 12 mnths age so as to prevent slippage. 4. Counsels all families in their house where there is malnutrition 5. Support family and community action to ensure access to basic entitlements for food	1. Food entitlements difficult to access. 2. Community efforts to access entitlements may come into conflict with power relationships – often ANM and AWW is with more powerful – but if not they also may require support.
Available 24 hours with basic drug kit. Families visit her for advice on choice between local/home care or referral.	Provision and regular refill of local drug kit. Competition from impressive but irrational costly care provided by unqualified RMPs
1. Helps in microplanning to get best possible care at time of child birth. 2. Encourages and escorts for institutional delivery. 3. Tracks and promotes antenatal care	1. Lack of referral support. 2. Unreasonable expectation of ASHA to escort all BPL women for delivery along with failure to compensate her for doing so.
1. Makes visit within two hours and ensures essential newborn care. 2. Makes regular visits for first month 3. Established breastfeeding within one hour. 4. Ensuring exclusive breastfeeding	
Mobilises for the nutrition day, holding of events and meetings of health committees, adolescents etc on that day. Helps community draw up and implement local village plan	The gram panchayat is the main player in this activity. The initiative may need to come from ASHA

The ANM should be available for the following:

1. Closer coordination with AWW for immunisation on pre fixed immunisation days,
2. General health checks of all children at the AWC on prefixed days- same as above,
3. Referral and follow up of children identified with illness or disability,
4. Training and support to AWW and ASHA for specific health care functions like care of sick children (for which appropriately modified IMNCI protocols can be used), home based neonatal care, health education and behaviour change etc.

ASHA: OPPORTUNITIES FOR CHILD CARE AND REDUCTION OF CHILD MORTALITY

ASHA can potentially meet every family with a newborn within the first day, if not within the first hour and support the mother to establish exclusive breastfeeding. This single measure would create a significant reduction in mortality as evidenced earlier.

ASHAs can potentially meet every family with a newborn repeatedly in the first week to ensure the key steps to newborn care - keeping the baby warm, ensuring weighing of the newborn and referring the severely low birth weight child and the sick neonate to appropriate care, as well as adequate feeding of the mother. These steps done by a trained volunteer can make a difference even in vulnerable social and economic circumstances.

ASHAs can potentially be accessed by every family where there is a child with diarrhoea, fever or coughs and cold within the first day of the illness. ASHA would be able to help the family make an informed choice between management with home remedies or seeking appropriate medical care. This support would save the poor family needless expenses for trivial illnesses while helping them access timely institutional care for life threatening illnesses. To some extent she would be able to contribute to saving lives by her own curative interventions also.

ASHA can potentially reach out to every family with an infant in the first year and in a substantial part of them prevent the slip into malnutrition by appropriate counseling on exclusive breastfeeding and later on adequacy of complementary feeding possibilities within the families' social, economic and cultural contexts.

The Mitadin programme of Chhattisgarh as well as the RACHNA programme run by CARE-India both demonstrated features of convergence some of which have been incorporated into the ASHA programme and the NRHM.

In some states (Gujarat and Goa) the AWW is under the purview of the Health Department and performs the duties of frontline grass roots health workers.



Convergence within the State-wide Mitnin Programme, Chhattisgarh

An evaluation of the Mitnin programme showed interesting findings of convergence between the Mitnin, the AWW, the ANM and health care facilities on the whole.

- In dalia distribution 56.11% of Mitnins helped the AWW
- 47.99% promoted their visiting the AW regularly, 45.37% in weighing the child, 36.08 in diagnosing and counseling on malnutrition,
- 45.94% on immunisation and 6.32% in other categories of assistance, 69.95% have been helping the ANM with immunisation,
- 56.60% have been helping for conducting surveys,
- 36.83 % have been helping in antenatal care,
- 20.75% have been called upon to help during health camps and another 5.58% report other categories of assistance.
- 54.47% of Mitnins referred cases to ANMs/health sub-centers and 40.53% have referred cases to PHC. A small but very significant 17.07% have actually accompanied the patient to the health facility on one or more occasion.
- Of the cases who were referred to ANM 77.5% said they had a good response and only a very small 0.1% reported a bad response.
- Of the cases referred to a PHC or CHC- largely to CHCs the 78.49% had a good response, and only 2.75% reported a poor degree of care.

RACHNA (Reproductive and Child Health, Nutrition and HIV/AIDS) Programme

This programme has been a part of the integrated nutrition and health project run by CARE-India over 78 districts over 9 states in the last five years working with the ICDS, RCH and now the NRHM. Thus, facilitating convergence between ICDS and the health care system was built into the programme itself. One of the strategies of RACHNA was to bring the HFW and ICDS departments together for joint planning and problem solving.

Four “best practices” are replicated in INHP sites to facilitate demonstration and implementation: Nutrition and Health Days (NHDs), change agents, community-based monitoring systems (CBMS), and block level resource mapping (BLRM). The change agent was involved in convergence at the village level like the Mitnin.

As would be expected, the best outcomes of the RACHNA programme were achieved in Chhattisgarh where the Mitnin programme was also operational.

Evidently, the triad of the AWW, ASHA and ANM can be a huge strength to child care, child health and prevention of malnutrition and child deaths, provided there is the kind of institutional back up as envisaged in the Bal Shakti Yojana³ (for severe malnutrition) and the Purulia Model (for institutional neonatal care, as described in Lesson 4, Book 3 ‘Addressing Neonatal Mortality’). The difficulty is that there is a degree of overlap between the roles of AWW and ASHA and neither are supposed to report to the ANM officially.

3. You are advised to revisit the lesson on severe malnutrition and its description of the Bal Shakti Yojana as a system for meaningful convergence worthy of being replicated throughout the country.

Thus, working relationships between the three are yet to be defined and tried and tested. Table 4.2 indicates a possible role definition that could be helpful.

However, convergence is required at a higher level between the Ministry/Department of Women and Child Development and the Ministry/Department of Health, as well as the village level.⁴

The specific mechanism for this convergence can be:

At the village level:

1. the Nutrition and Health Day at the level of the Anganwadi
2. the village health committee and the village health plan at the village level
3. specific joint microplanning for malnutrition at block / district level

At the block level and district level:

4. the district health committee at district level and block health committee at block level
5. periodic joint sammelans and reviews
6. Joint formulation of BCC strategies, materials, and messages,
7. Identification of functional areas for training of staff including joint training, such as IMNCI and HBNC (home based neonatal care)
8. joint MIS between the two Departments on common issues
9. Identify point person in each Department to oversee the convergence process

Proposed Convergence Recommendations for Joint MIS

- Joint review of MIS of DWCD and DHFW MIS, particularly in regard to the two convergence areas and devise a more efficient data collection system at the field level that fits the needs of both without duplication of information.
- Work with Gram Panchayat to ensure universal registration of births, marriages, and deaths.
- Develop jointly a list of common process and output indicators at the level of the village and district to ensure that the goals of both DWCD and DHFW are being met.
- Develop a common reporting format for maternal and child health services.
- ASHA and AWW trained in collection and significance of gender disaggregated data for nutrition and health.

MATERNITY ENTITLEMENTS AND CRECHES AS OTHER ECCD SERVICES

The importance of maternity entitlements to ECCD

The newborn requires exclusive breastfeeding for a period of six months as well as a lot of care. The system of providing of 'paid leave' during pregnancy and after delivery is meant to support the health of the mother and the newborn. In some states of our country like Punjab and Haryana, government

4. Also see mohfw.nic.in/Intersectoral%20convergence%20between%20DWCD%20and%20DHFW.htm



employees get upto 6 months of maternity leave and 15 days of paternity leave. However, for over 90% of working women who are employed in the informal sector there are no such arrangements, and these are the women and newborns who need it most.

Some labour laws like the construction workers act do provide some maternity support, and the national maternity benefits scheme discussed previously offers a small cash support of Rs. 500 for BPL women. The ESI Act offers 12 weeks of leave at prevailing wages. Obviously there is a large gap between the requirement and schemes and programmes to fulfill it.

What can be done?

Some states have taken initiatives in this regard, again as a result of greater understanding of ECCD as well as the rights and needs of working women. For example, Tamil Nadu has come up with a scheme (Dr. Muthulakshmi Reddy Maternity Fund Scheme) in 2006 to provide Rs. 1000 per month to women with annual income below Rs. 12,000 for 6 months; 3 months before and 3 months after delivery.

It is important to ensure that maternity entitlements are made available as per the laws and schemes that already exist and this would require convergence with the Department of Labour. It is also well within the purview of the district plan to use flexible funds to create innovative new schemes to support the period of exclusive breastfeeding in this manner.

What are creches and what is their importance to ECCD?

A crèche (pronounced cresh!) is a system of providing day care to very small babies and children who cannot be taken care of at home because their parents are at work or for other reasons.

We have seen how all poor women are essentially working women, whether they receive a wage or not. We have also seen that good care of young children requires time, energy and sensitive and aware adult care givers. The ICDS as a system does not really take care of children under the age of three, nor is it designed to provide day care to the children of working

mothers in terms of timings, human resource and infrastructure. Thus, for over 15 crore women working in the informal sector and their children, there is a huge gap in terms of systems for supporting child care. Experts on child nutrition are beginning to see this as a critical factor in our failure to tackle malnutrition effectively and quickly.

Creches are an intervention in:

- reduction of IMR, CMR,
- prevention of malnutrition by facilitating continuing breast feeding and complementary feeding;
- promotion of growth, all round development and emotional security children under six.
- facilitation of girl child school entry and retention
- protection of children from sexual abuse and neglect
- empowering women to become economically productive and participate in national life.

Source: Devika Singh, Recommendations to 11th Plan; Citizen's Initiative for Rights of Children Under Six

What can be done?

Currently crèches are provided under the Rajiv Gandhi Scheme for Creches and under labour legislation. The coverage under the former is 22,038 creches till March 31, 2006. The country-wide requirement of crèches is estimated at about 8 lakhs. The provision of crèches under labour laws is negligible. Anganwadi-cum creche scheme is another way of approaching the requirement. Other innovative ideas may be taken from the work of some NGOs like 'Mobile Creches' who have over 35 years of experience of running day care centres for poor and migrant children. These are detailed below:

1. Rajiv Gandhi Creche Scheme: This is the only government scheme for crèches and is implemented wholly by NGOs who are provided financial support to run crèches for poor children. It has been revised in 2005 but its coverage and norms leave much to be desired. The scheme is being implemented all over the country by the Central Social Welfare Board through voluntary organisations, and two other national level organisations namely the Indian Council for Child Welfare and Bhartiya Adim Jati Sevak Sangh.

The National Crèche Fund was set up in 1994 to meet the growing requirement of working mothers for opening more crèche centers. A corpus fund of Rs. 19.90 crore was made available out of the Social Safety Net Adjustment Credit from the World Bank. The scheme envisages that 75 percent of the centers to be assisted by the National Crèche Fund would be general creches and 25 percent of the centers would be Anganwadi-cum-creche centers (see Point 3 below). The general crèches assisted by the NCF are on the pattern of the Crèche Scheme.

The voluntary organisations selected for opening the creches are required to open creches in rural areas and urban slums dominated by SCs /STs. Under the schemes, creches are sanctioned to voluntary organisations for a period of five years. Thereafter, they have to run the creches on a self-supporting basis. Many suggestions have been made to improve, strengthen and universalise the scheme, including widening the eligibility criteria to include mahila mandals, SHGs, unions etc. This scheme has not recieved much attention either by government or civil society organisations and movements, and certainly deserves more inputs.

ASHA, since she is the person who does home visits, needs to identify children under sibling care (children looking after their younger brothers and sisters) and of working women as part of her responsibility and provide this information to district level meetings so that creches go into district level planning and become part of the strategy for health care and development.

2. National Rural Employment Guarantee Act: This allows for a woman to be deputed to look after young children at the work site whenever five children under the age of six are present at a worksite. The NREGA Guidelines also call for the provision of crèche facilities at work sites and direct the state governments to ensure that the required resources are built into cost estimates. However, in actual fact, creches are nowhere in evidence. The NREGA is a big opportunity to create organised demand for creches. It also offers opportunity to try Anganwadi-cum-creches in these kind of circumstances.



3. Anganwadi-cum-Crèche scheme: Though government documents on ICDS refer to the possibility of a percentage of Anganwadis to be converted to crèches, in actual fact, this potential has not been used. It is also worth noting that converting an Anganwadi to a crèche is not simply a matter of expanding the timings to cover the full day, but would require additional space and workers, special infrastructure, materials and training. Nevertheless, this can and should be explored further in districts with high numbers of migrant workers, construction workers, brick kilns, agricultural labourers etc. as a start, It is recommended that Anganwadi-cum-Creches are provided under ICDS on a pilot basis in all NREGA districts so that women can avail of employment opportunities and have a safe place to leave infants where their basic needs are addressed.

4. Mobile Creches: This has been an innovative programme run by an NGO of the same name in Delhi, Mumbai and Pune to provide child care services to the children of construction workers on worksites. Simply put, it involves a pool of trained child care workers being available to run creches on construction sites with negotiations with the contractor to provide space, helpers and financial support. Once the construction is over, the crèche simply 'moves' to another construction site. 'Mobile Creches' also has a training unit which is accomplished in training hardly literate or illiterate women in the art and science of child care.

All these methods and others can be used in convergence with the relevant Department (Labour, Social Welfare etc) to provide ECCD through child care services at the district level.

I. Review Questions

1. What are the various functions of a comprehensive ECCD service? How do these support the goals of the NRHM?
2. What are the main problems in the functioning of the ICDS with special reference to your district?
3. What can be done about these problems at district level through convergence?
4. What are the potential benefits and problems with the ASHA-ANM-AWW combine at the village level? How can these problems be minimised?
5. Why are maternity entitlements and creches necessary?
6. What are the current mechanisms for convergence between departments relevant to ECCD? How can this be improved?

II. Application Questions

1. It seems very obvious that improving the status of ECCD in our country requires much more support

than has been received, specially in relation to systems such as maternity entitlements and crèches. Why do you think these have remained neglected for so long?

2. What can be done to strengthen / provide child care arrangements at community level ? who should be responsible for ensuring such systems of care and how can they be implemented?
3. What should be done in your opinion to strengthen the ICDS further?

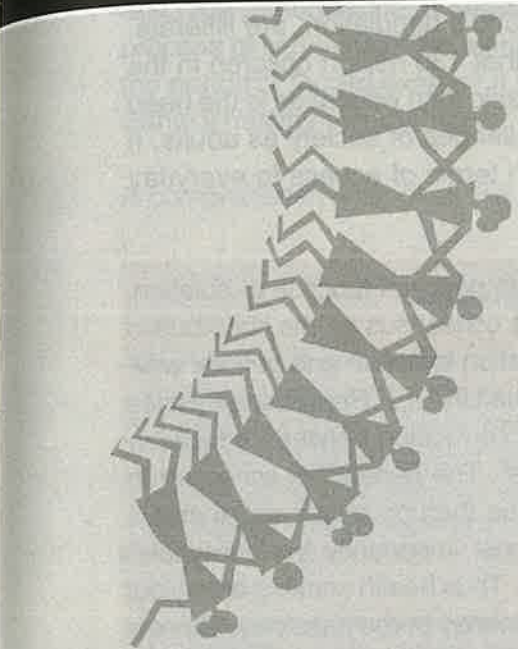
III. Project Assignment

1. Visit an Anganwadi centre in your area and describe it in the light of the discussion above. Make recommendations for improvement.
2. Visit a worksite that employs women and make an assessment of the situation of child care and access to child health services such as immunisation in the 'labour camp' or slum or on the worksite. Make recommendations to enable comprehensive ECCD.

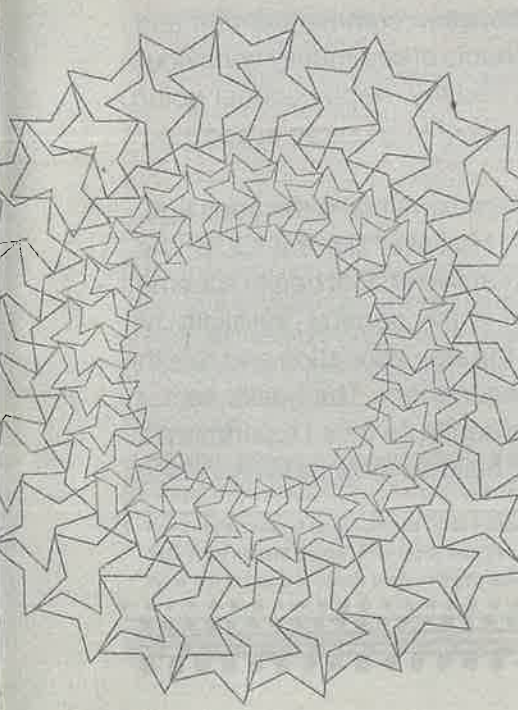


Lesson FIVE

Education and Health



In this lesson we shall discuss:

- The relationship between health and education
 - What child friendly schools should be like
 - What health and physical education involves
 - A brief history of the school health scheme and its elements
 - Current status of the school health scheme and convergence with primary education
 - Good practices; Government and NGO
 - The importance of the mid day meal scheme to health and education
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INTRODUCTION

Education has been declared a human right, the denial of which can lead to “loss of potential and productivity” for an individual. But nearly 1 billion people or a sixth of world’s population, are illiterate. Moreover, UNICEF’s State of World’s Children 1999 Report points out that 130 million children in the world are still denied this right, of which almost two thirds are girls. More basic than education is the need to be literate. Illiteracy afflicts the lives of children in coping with the challenges of society as adults. It impairs their ability to lead a financially stable and socially fulfilling life in terms of access to everyday opportunities to learn, grow and progress.

If health is understood as a state of complete physical, mental and social well being than being educated is in itself part of being healthy.

However, education does not function in isolation. There is worldwide consensus on the contribution of education in relation to health and general well-being of a child. The UNICEF Report emphasises “the unmistakable correlation between education and mortality rates”. The benefits of schooling to health status accrue through better social status

and income. They also accrue through better knowledge and skills. Perhaps most importantly, the individuals’ self-perception in relationship to the natural and social environment changes. Thus health seeking behaviour changes; the perception that disease is something to be acted upon and not merely borne passively. There is confidence in being able to take action – meet a doctor, try different remedies, look for an explanation into preventable causes - a confidence that comes with education. Almost all current public health goals correlate with education, as the NFHS statistics show. For example fertility rates have been found to decline with rise in literacy, and infant mortality rate is known to directly correlate with years of schooling of the mother.

Many of these benefits take time to manifest. There is a large time gap between commencement and completion of schooling and even after that, for education to become determinants of community behaviour. On the other hand, an effective school health programme can lead to a healthy, happy school going child – an immediate and visible gain, that can be used very effectively as a tool to promote schooling.

Like the ICDS, the concept of school health was recognised by Indian policy makers many decades ago. The importance of school health is noted in Bhore committee report itself. However like the ICDS, the conversion of this understanding to implementation in the form of a comprehensive school health scheme has been weak or non existent across the country. A part of the reason is the general ‘invisibility of children’ and the low value placed on the rights of the child. Part of it lies in the way education and health are managed as two independent sectors, with very little coordination between them. The health sector places little emphasis on interventions in schools – and schools do not view health as their Department’s priority. The NRHM emphasis on convergence is recognition of the need to build synergy between these two sectors the outcomes of which are so closely inter-dependent.



MAKING SCHOOLS CHILD FRIENDLY¹

Schools can have adverse impact on health also. In the era of increasing demand for quality education and high performance, a great deal of physical and mental stress is being faced by children during the process of schooling. The extreme impact of this is reflected in alarming trends of child suicides around the period of 'board exams'. It is therefore important to ensure that education is child friendly and done within a healthy environment.

A comprehensive list of all the components of making a school child friendly is given in the box:

CHILD FRIENDLY SCHOOLS

1. No corporal punishment.
2. School bags should not weigh more than 10% of the child's weight. Strict adherence to this, specially in classes upto VI / VII. In each class the size of the bag should be regulated. Written work mostly to be done at school and books to be kept there thus effecting reduction in burden to carry home. Notes on sheets of paper, and to be filed at home, thus enabling reduction in burden. This could reduce headache, backpain and neckpain widely seen in children.
3. Safe conveyance. No uncomfortable overloading in vehicles.
4. Provision of clean, hygienic facility for taking meals.
5. Due role for and provision of facilities for cultural, physical/sports activities. Unwinding needed for children. 10 Acres of land for each school (5 acres for primary school). When approval is given, ensure that these activities are given due place.
6. Medical check up. Before admission and after it once annually compulsory medical check up has to be done. Ensure that immunization is complete before admission.
7. Provision for safe drinking water. Daylong, uninterrupted, safe drinking water source essential.
8. Spacious classrooms. Class strength not to exceed 40. 10 sq. ft. of space for each child. Seating designed to cause no fatigue. Primary classes must be on ground floor only. A verandah must be in front of each classroom. Windows and doors to constitute 25% of room space.
9. Assistance at the time of accidents. There must be provision for taking medical care of children in emergencies. A teacher must be specially trained for this.
10. Adequate toilets/urinals; 1 urinal per 60 children; 1 toilet per 100 children; Separate toilets and urinals for boys and girls; Must be cleaned 2 or more times every day.

Source: Norms suggested by Indian Academy of Paediatrics, Kerala Chapter

One near-universal problem is the inability of schools to deal with, or often even to identify, disability. Even common disabilities like visual disability due to refractive errors could lead to considerable difficulty in learning and stress. Special learning disabilities or dyslexia are common in children (5-20%) and a curriculum that does not recognise such learning needs tends to induce a lot of stress on such children, the teachers and the parents.

Another almost universal issue is corporal punishment. Issues such as corporal punishment (hitting of children) have often not even understood to be wrong – and many teachers and even parents would justify it. Awareness of these issues as well as administrative action is urgently required.

A simple thing like a very heavy school bag can be very

1. For a more detailed description of Child-Friendly Schools- including a rating scale for assessing performance – see UNICEF's "Is Your School Child-Friendly? A Self- Assessment Guide." This guide lists five traits that define being child friendly. The guide also lists seven goals with a check list of 5 to 10 activities/processes to be put in place to reach each of these seven goals.

detrimental to the health of children. A National Commission has examined this specific problem and made recommendations that need to be enforced.²

Finally, the entire system of school examinations and evaluations is demanding rethinking and reform in favour of children. A court ruling that bans 'entrance tests' for preschool children in Delhi is a good beginning. Many progressive education boards like the Indian School Certificate (ISC) and boards of Tamil Nadu have recognised this fact and exempted mathematics and languages as compulsory subjects at the tenth standard.

However, most elementary schools still see education more as a drill for learning by rote than learning for understanding or ensuring creativity.

The five traits of each of the child friendly school are:

1. Inclusive, gender-sensitive and non discriminatory
2. Effective with children: the learning is child-centred; promotes quality learning, and encourages children to participate in school and community activities
3. Healthy for children
4. Caring and protective of all children
5. Involves children's families and the community.

Goals of making schools child friendly

1. Encourage Children's Participation in School and Community.
2. Enhance Children's health and well being.
3. Guarantee safe and protective spaces for children.
4. Encourage enrolment and completion.
5. Ensure children's high academic achievement and success.
6. Raise teachers morale and motivation.
7. Mobilise community support for education.

SCHOOL HEALTH AND THE CURRICULUM; HEALTH AND PHYSICAL EDUCATION³

During the last two decades several National Health Programmes like the Reproductive and Child Health, HIV/AIDS Education/Adolescence Education, Tuberculosis and Mental Health have been emphasising on health education and children are viewed as a potential 'target groups' for preventive and promotive activities. The concern with this approach is that the focus is on giving information, and each of these programmes is independent of another. What is needed is a more integrated and comprehensive approach that deals with nutrition, communicable and non-communicable diseases and life skills information in a way which is appropriate

2. See Government of India (1993): Learning Without Burden, Report of the National Advisory Committee appointed by the Ministry of Human Resource Development, Department of Education, New Delhi. The National Advisory Committee was popularly known as the Professor Yashpal Committee, who was its Chairperson.

3. For greater details, refer to National Council for Educational Research and Training (NCERT) (2005), Position Paper of the National Focus Group on Health and Physical Education, National Curriculum Framework, New Delhi. This section has been adapted from this document.



for the age and developmental level of the child.

Health Education in the school should form a part of the routine life of the school contributing to the development of a right attitude among children towards health and to the inculcation of good health habits in them. The programme should include activities suggested under school health practice as a regular part of school activities and life. The objectives and syllabi should reflect the following four major themes:

1. Personal health, physical and psycho-social development
2. Movement concepts and motor skills
3. Relationships with friends and family
4. Healthy communities and environments

Objectives of Health Education

1. To help children become aware of appropriate health needs at particular age(s) through information and communication. To encourage them to learn desired skills and form right habits about food, exercise, sleep, rest and relaxation in their everyday life.
2. To help children know and accept individual and collective responsibility for healthy living at home, school and in the community.
3. To help children to be acquainted with nutritional requirements, personal and environmental hygiene, sanitation, pollution, common diseases as well as measures for their prevention and control.
4. To provide the requisite services through the school health and nutritional programmes
5. To help children know their status of health, identify health problems and be informed for taking appropriate remedial measures.
6. To create awareness among children about rules of safety in appropriate hazardous situations to avoid accidents and injuries. To acquaint them with first-aid measures about common sickness and injuries.
7. To help children learn correct postural habits in standing, walking, running, sitting and other basic movements so as to avoid postural defects and physical deformities.
8. To help children improve their neuromuscular coordination through participation in a variety of physical activities contributing to their overall fitness so that they live well and work better.
9. To help children understand the process of growing up during adolescence, of sexuality, of the physical, mental and social needs during adolescence
10. To understand the issues related to HIV/AIDS and the use of addictive substances, and to be able to protect oneself from these risks and the risk of violence.
11. To provide skills for dealing with psycho-social issues in the school, home and the community
12. To help children grow as responsible citizens by inculcating in them certain social and moral values through games, sports, N.C.C., Red Cross, Scouts & Guides and various forms of working as a team and with communities.
13. To create interest among children for the practice of yogasanas and meditation through which they learn self-control, concentration, peace and relaxation to avoid the ill effects of stress, strain and fatigue of routine everyday life.
14. To address the physical, psycho-social needs of differently-abled children.

Given the interdisciplinary nature of the area there is a need for cross curricular planning and need for health education to be integrated with science, social science, language and other relevant subjects.

Specially trained and motivated human resource is necessary to transact some elements of such a programme- other than many components where every teacher should have the requisite knowledge and skills. All educational institutions should appoint, at par with other teachers, trained and qualified teachers in health, yoga and physical education.

Infrastructural requirements like playing grounds and swimming pools can be organised by pooling and sharing of facilities within a specified geographical area. The facilities managed by government, private and other agencies need to be shared in order to avoid unnecessary expenditure. (For more details of adolescent health also refer to Lesson 7 of Book 6.)

WHAT IS THE SCHOOL HEALTH SCHEME?

The School Health Service in India dates back to 1909 when Baroda became the pioneer in starting medical checks for children in schools. In 1960, following upon recommendations by the Bhore Committee (1946) and the Secondary Education Committee (1953), a School Health Committee was set up by the Government of India to suggest ways of improving the health and nutrition of school children which made detailed recommendations towards school health services and the mid day meal programme.

The Government of India launched a Special School Health Check up Programme in 1996 to further school health objectives. The scheme was largely ignored. However, some states like Tamil Nadu, Gujarat, Kerala, Delhi, Sikkim and Chandigarh have continued to run effective school health programmes. Currently, the school health scheme is to be a part of the National Rural Health Mission and has specific place in the district health plan. It can be specifically budgeted for as per requirement. There are also specific provisions to provide free spectacles to children with refractive errors under the blindness control programme.

An ideal school health programme should be defined by a minimum set of health care provision services and health care promotion activities.

"SCHOOL HEALTH PROGRAMMES" AS A SERVICE SHOULD IDEALLY INCLUDE:

As Health care provision

1. An annual health check with follow up and remedial action on illnesses identified.
2. At least one annual dental check up with follow up and remedial action on illnesses identified.
3. At least one annual eye check up including for refractive errors with follow up and remedial action and where needed giving of spectacles.



Changing Current Stereotypes of School Health

When anybody hear the word School Health, the classic image of School Health programme that comes to people's mind is as follows:

1. The day long annual exercise of examining the pupils of the entire school by a specially invited single doctor or panel of doctors coming from a far off town,
2. Distribution of plenty of tablets for symptomatic relief to satisfy that "something is given free" such as B-complex, other vitamins, iron tablets, paracetamol, analgesics etc,
3. Filling up of printed cards with long list of columns, often with in illegible handwriting which is not readable for the poor teacher
4. Occasionally one or two children's card are picked up and given to the teacher to advise their parents to take the child for further check up in town- which instruction the teacher can seldom follow due to lack of means to do so – or even adequate understanding of why it needs to be done.
5. At the end of the day all the cards are bundled up and kept "safely" in the Head Masters room for a year-unopened and never referred again - for the entire year.

What a waste of energy, professional time and resources if this is all that is in School health! Imagine if a Medical officer of a PHC devote two full days to complete this exercise in one primary school with 400-500 school children in village. Then he will be spending about 60 to 80 working days to complete one round of School health check up in 30-40 schools in his area of 30-40,000 population.

Is it practical?

Is it cost effective?

Does it make sense as a public health intervention?

The challenge is to make this scheme and even the conduct of the annual health check up event more meaningful Earlier in the chapter we had outlined a number of activities. Now let us look at what linkages and human resources we need for implementing this expanded vision of school health.

1. School health programme must have a dimension of providing health care services to the students. This means a mechanism to detect and deal with the acute illnesses of children. Intervention must be at the time of need. A doctor or even nurse stationed in the school 24 hours is not practical. So there must be an alternative mechanism- say, capacity building training of selected teachers who can identify early symptoms and signs of common illnesses prevalent in the locality, also fair knowledge of seasonal illnesses. Then the teacher can be on alert to pick up children with such early symptoms to refer such cases to the nearest private practitioner or government doctor for treatment.
2. A school teacher who is interested may be designated as school health care provider and provided with a first aid kit to deal with emergencies in school. The kit may contain symptomatic drugs to deal with early symptoms. This will be appreciated by both students and parents. The school teacher is also linked to the ASHA trainers and the local PHC from whom he/she can acquire skills and drugs needed.
3. Another dimension of school health that we need to build is an empowerment process of "Child To Families." Health Communication. This empowerment in health is through a continuing flow of information from the class room to families and to the kitchen where a continuum of education and resultant behavior change of adult family

members does take place. This information flow through students on health promotion including healthy life styles, prevention of diseases, seeking early referral for emergencies etc is from the teacher of the school with a well functioning School Health Programme. Whether it is washing hands before handling food, keeping food covered to protect from flies or taking the infant regularly for immunization all are powerful messages that are carried by Child to families from the classrooms. This is not limited to a one day exercise. It helps to link this process with the Village Health Committee and ASHA.

4. Annual physical examination of students and screening of cases for congenital anomalies and correctable deformities then becomes the last and a complementing component of school health programme. Any check up without efficient referral to the concerned specialist and adequate follow up is meaningless. Only if referral mechanism is lined up and the specialist has assured time to examine referred cases should we attempt screening exercise. The role of teachers is to persuade the parents in seeking appointment with the specialist and compliance of the steps advised by the specialist. A limited number of 5-10 students under constant watch and follow up care of the nodal teacher and "School health Club" makes this programme very meaningful.
 5. The School Health Club should be linked to the PHC and CHC for this purpose. The School Health Club could also become a forum of peer education, of selection and training of peer educators and of access to them for other students.
 6. Annual physical examinations need a doctor. But there are many common health problems that a nurse can detect and which need check ups to detect. Anemia and malnutrition are the two most common of these. Especially since we have the mechanism of the Mid Day meal and access to drugs and deworming tablets to address it. Leaving it to the school teachers or even a trained school teacher is also not likely to work given the work load involved. Hence the suggestion for an adequate number of nurses to be able to provide such care once in three or four months- at least thrice an year. The provision of a nurse for school health is invaluable at the middle and high schools for the public health systems are usually overwhelmingly of male doctors-and one needs a female health care provider to examine and even to talk on reproductive health issues. Life skills programmes also needs some well trained health care providers to contribute to its success.
 7. Activities like the quarterly more general health check up, the identification and training of peer educators, the imparting of life skills education, may be initiated more effectively if the programme takes the help of suitable NGOs.
4. Age appropriate immunisation.
 5. Regular identification and correction of anemia and malnutrition and where needed deworming. This may be done during visits by a school health nurse
 6. First aid and emergency care, through a school teacher trained for the same.
 7. First contact care - treatment and where necessary timely referral for common childhood illness; and drug kit to do this effectively. This could be done through a school teacher trained for same
 8. Early diagnosis and management of disability

As Health Promotion

1. Mid day meals and other nutritional services with special provision for malnourished children
2. Supplementation with iron and vitamin A
3. Ensuring a healthy school environment including safe drinking water, clean toilets, proper waste disposal, adequate open space, safe building and violence and discrimination free social environment,



4. Health education- including promotion of hygiene, healthy habits and life styles – use of toilets etc.
5. Prevention of communicable diseases: transmission in the school and in the community, through appropriate measures including preventing over crowding in classrooms, proper toilet facilities, proper hand washing facilities and training and supervision of cooks.
6. In high schools and higher secondary schools - life skills education & adolescent health including sex education
7. Promotion of mental health, dental health, eye health,
8. Physical education including yoga
9. Proper maintenance of records- each pupil should have a regularly updated health record.

Ask yourself:

- i) What is the coverage of health, nutrition and health education in school curriculum?
- ii) What is the system of screening through regular health check ups of all children?
- iii) What is the system of providing for corrective action based on screening?
- iv) How are cost of referrals met in a school health programme?
- v) How well are issues like clean drinking water, good sanitation etc. covered in school level inter-action?
- vi) What is the provision of cooked food in schools?
- vii) Are teachers trained to handle minor health needs of children?
- viii) What is the system of early detection of disability and correctives for them?
- ix) How is Yoga, meditation and sports integrated with the school curriculum?
- x) Are healthy cultural practices with regard to nutrition and food inculcated in the school?

CONVERGENCE FOR THE SCHOOL HEALTH SCHEME

The school health scheme is to be delivered by the primary health centres, part of the Department of Health, to children studying in schools run by the Department of Education. Thus, actual implementation requires that the school system understands the value of the School Health Scheme and demands it from the public health system, and that the primary health centres give it priority and delivers their contribution to it with efficiency and quality. Obviously this requires coordination of a high order and convergence between the two departments. It also needs the development of adequate systems.

The states of Gujarat⁴ and Tamil Nadu⁵ offer a good example of a well run school health scheme and the mechanisms for convergence (see accompanying boxes).

The school health scheme also offers much opportunity for the participation of non governmental organisations and parent teacher associations.

4. Adapted from NRHM documents

5. Dr.D.Sathyanarayanan, Institute of Community Medicine, Madras Medical College, Chennai

School Health Scheme; Government of Gujarat
Since 1997, the single largest health programme operating in the state.

- **Organisation:** State level Steering Committee chaired by the State Health Minister, with Chief Secretary, Additional Secretary (Health), Additional Secretary (Education), Additional Secretary (Finance) and Members of Legislative Assembly as members.
- **Implementation:** Microplans are prepared at PHC level which include details of the schools and anganwadis to be visited for health check ups and list the other activities to be carried out. All these plans are collected, collated and analyzed by the state level Health Education Bureau to provide the State Plan for School Health Scheme.
- **Services provided:** Children with minor ailments like anaemia, worm infestation, ear discharge, scabies, boils are treated on the spot while those requiring the services of specialists are sent to related centers. Children with refractory errors are provided spectacles free of cost. Children suffering from heart, kidney and cancer diseases are provided treatment at apex tertiary care hospitals. Not only is the cost of treatment borne by the state government, referral transport is also provided. If needed, specialist treatment outside the state is also provided.
- **New initiative:** "Health Promoting School" has been started with assistance from WHO in four districts and one urban area. The programme will take care of Quality of Water and Sanitation in schools and augment capacity building of teachers so as to achieve holistic and sustained promotion of health in schools.

Tamil Nadu

The State of Tamil Nadu has one of the best school health services in the country. All the schools (Government and private) are under a PHC medical officer. Thursdays are exclusively reserved for school health. This PHC medical officer forms two or three teams using the paramedical force with him and develops an action plan by which a team makes atleast three visits in a year to each of the schools in his area, on a rotation basis. He will make atleast one visit in a year and screen all children. Each child is given a health card and is maintained by the school Headmaster and updated by the health team. The state through the state medical services corporation (TNMSC) supplies a fixed set of drugs exclusively to be used during the school health programme to each PHC at the start of the year. An up to date morbidity pattern during each visit is compiled at the end of the month and sent to the district and then forwarded to the state headquarters. As a part of the programme, atleast one teacher from each school has been trained by the PHC medical officer to detect minor ailments and report immediately to the medical officer. Modules in the regional language have been developed at the state level and distributed to them. The modules also have techniques to teach 'health' to children.'

THE MID DAY MEAL SCHEME (MDMS)⁶

It is important to recognize the relevance of this programme to the NRHM goals of preventing malnutrition and child mortality. It is well understood that the period of adolescence is the second phase (after early childhood) of rapid growth and there is a high requirement of good quality nutrition. Most children reach adolescence with malnutrition and anemia. Female adolescents with these handicaps go on to become young mothers who bring forth low birth weight babies and the cycle of malnutrition is perpetuated through the generations.

6. For greater detail refer to Midday Meals: A Primer, 2005, The Right To Food Campaign



It has also been seen that the mid day meal scheme has a positive influence on girl child enrollment and the impact of women's education on reducing child mortality is well known. A positive influence has also been seen in overcoming barriers of caste between communities by creating an opportunity and situation for them to eat together. Needless to say, hungry children can hardly learn in schools and combating classroom hunger is reason enough to run a good mid day meal programme.

The National Programme of Nutritional Support to Primary Education was launched in 1995 by the GOI. However, as with the ICDS, it was only after the Supreme Court judgment of 2001 that states were forced to implement this seriously. Again, Tamil Nadu and Gujarat have been far ahead of other states in the implementation of this scheme.

Who is entitled to MDMs?

All government or government assisted schools must provide mid day meals. This includes centres run by Education Guarantee Scheme (EGS), Alternative and Innovative Education (AIE) centres and madrasas and maqtabas run with government support.

What is to be provided in MDMs?

According to Supreme Court orders, this must be a hot cooked meal. This should provide 300 calories and 10-12 gms protein for 200 days of the year. Two rupees per child per day are allocated for cooking costs (food grains supplied by central government free of cost) of which one rupee should come from the state government. In drought affected areas food is to be provided even during holidays.

How is this to be implemented?

The Village Education Committee (VEC) is to appoint cooks and helpers and preference is to be given to appointing SC/ST cooks and helpers. Wages are considered part of the 'cooking costs' of Rs. 2 per day per child.

What convergences are possible to strengthen the MDMS?

The MDMS is run by differing nodal agencies, e.g, the Department of Education in many states, the DWCD (Orissa), the Panchayati Raj Department (Rajasthan) or the Department of Mid Day Meals (Tamil Nadu), but the Health Department needs to participate in the monitoring of this scheme as well as ensure that standards of food safety are maintained.

Apart from this, some components of the MDMS can be funded under other schemes. In rural areas, for instance, cooking sheds can be constructed under the Sampoorna Grameen Rozgar Yojana (SGRY),

drinking water can be arranged under the Accelerated Rural Water Supply Programme (ARWSP), and funds for cooking utensils are available from Sarva Shiksha Abhiyan (SSA). In urban areas, similar facilities are available under schemes such as the National Slum Development Programme (NSDP) and Swarna Jayanti Shahri Rozgar Yojana (SJSRY). It may be possible to employ cooks and helpers under the National Rural Employment Guarantee Act.

What problems does the scheme currently face?

As with other schemes, performance varies greatly across the states. However all states have had to respond to the supreme court order to universalize the scheme. The following issues affect its quality:

1. insufficient funds and irregular fund flows
2. supply of poor quality of food grain
3. nutritionally inadequate and repetitive menus
4. lack of kitchen sheds or exhausts leading to smoky environments in schools
5. lack of facilities for running, safe water
6. staffing gaps in helpers and cooks
7. lack of training to helpers and cooks in basic hygiene and nutrition
8. teachers get deflected from teaching to administering, monitoring and supervising affecting quality of education
9. poor quality control and food safety standards
10. poor support from concurrent school health schemes
11. poor community participation in monitoring

SCHOOL HEALTH IN THE DISTRICT PLAN

The key questions that a district plan would need to address are:

- a. What is the menu of activities that each primary school, each middle school and each high school will plan for? Which of these would be mandatory for each school?
 - b. What would be the requirement of human resources – to be deployed full time and to be asked to help part time, in this programme, to reach the planned set of school health activities?
 - c. How many of the human resources required would be located in the health department and how much in the school department and how much in NGOs?
 - d. What would be the capacity building needed –in peer educators, in designated school teachers, in all school teachers, in paramedicals and nurses hired/deployed for this programme and in medical officers for this programme? Are the training /instruction material for this in place? Who would develop it?
 - e. What would be the management structure for this programme so that there is effective synergy? What role is envisaged for NGOs in this?
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- f. What are the clear process outcomes and health outcomes intended? And what is the budgetary allocation needed?

NGO Partnerships in School Health; the Naandi Foundation Experience

Naandi works in 300 government elementary schools in the old city area of Hyderabad that comprises 30% of all government schools in the city. In the course of the program one of the greater obstacles to learning was observed to be frequent bouts of absenteeism, and a general low-energy index of children. Ill health and lack of efficient treatment, it was discovered, were the predominant reasons for these observations. The program is being run at a cost of just 50 paise per child per day, covering common cold to cardiac surgery. A capital investment of about Rs 100 per child is also required for health camps and photo ID card for each child, OP clinics in nodal schools and equipment and minor civil works at base hospital. One of the innovations of the programme is the running of **School based Out Patient Clinics** – Set up in nodal government schools, 24 clinics run everyday during the school hours. Each clinic is linked with few other government schools within a reasonable radius for ease of travel. An experienced pediatrician diagnoses the children and dispenses medicines to the accompanying guardian. Naandi, on invitation from the Government of Rajasthan, is implementing the school health program for the government schoolchildren in the city of Udaipur covering more than 40,000 children. The partnership with the state includes a 50% cost share for capital costs and all recurring expenses. There is a proposal to expand the program to cover the entire state. In addition, Naandi is in dialogue with the Government of West Bengal for implementing the program for government schoolchildren of Kolkata city. Madhya Pradesh is also keen to provide health care for tribal children in 2 districts.

I. Review questions

1. In which ways are health and education connected?
2. What are the basic elements of a school health scheme as it exists today? What are the main constraints?
3. What is being mooted as a comprehensive school health programme?
4. What other things can be done to make schooling healthier for children? What do you understand by a child –friendly school?
5. How does the mid day meal contribute to child health?

II. Application questions

1. Discuss the pros and cons of the examination system and the current competitive environment for children. How can the negative aspects be

minimized or handled?

2. What communicable disease are known to spread very easily within a classroom esp when class rooms are so over crowded? How would a school respond to reports of an outbreak of diarrhoea, hepatitis, measles, chicken pox, dengue, or malaria in the village where the school is situated. When would you declare a holiday?

III. Project assignment

1. Visit a government primary school in your area and make a comprehensive assessment of how 'healthy' it is. (Note: This task requires more than an assessment of the school health scheme and should cover all the issues discussed in this Lesson!).
2. Design a school health card which can be used for every student and a consolidation form so that we can have an assessment of the schools health at a glance.

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Acknowledgements

There are many others who have contributed in various degrees through valuable suggestions and critical comments as well as by providing key reference material. While we are unable to name all of them here due to considerations of space, the editorial coordinators would like to acknowledge their contributions with many thanks!

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