

Book
15

PUBLIC HEALTH RESOURCE NETWORK



PHRN Tribal Health



Book 15

Public Health Resource Network

Tribal Health



PHRN



Coordinating Agency

Public Health Resource Society, New Delhi

Partners

National Rural Health Mission

National Health Systems Resource Centre

State Health Resource Centre, Chhattisgarh

ICICI Centre for Child Health and Nutrition

National Institute of Health and Family Welfare

Department of Health and Family Welfare, Chhattisgarh

State Institute of Health and Family Welfare, Chhattisgarh

Jharkhand Health Society

Institute of Public Health, Jharkhand

State Institute of Health and Family Welfare, Orissa

Population Foundation of India (Regional Resource Centre for RCH)

Child in Need Institute

Design and Layout

Mishta Roy

Ajay Shah

Printing

Capital Printers, New Delhi

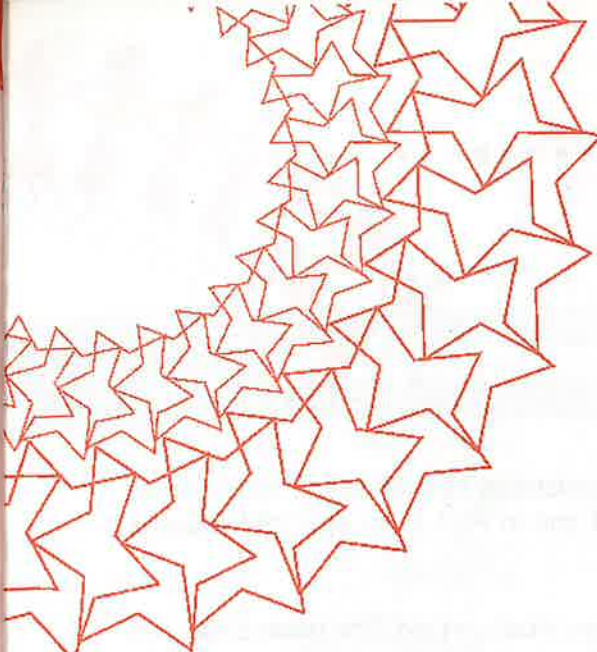
January 2010



Contents

Public Health Resource Network

Preface	.....	iii
1. Understanding the Tribal Situation	.....	1
2. Fighting Malnutrition in Tribal Areas	.....	21
3. Gender Issues in Tribal Context	.....	41
4. Healthcare Services in Tribal Areas	.....	63
5. Malaria in Tribal Areas	.....	87
6. Particularly Vulnerable Tribal Groups: Special Needs	.....	117
7. Strategizing Tribal Health in District Health Action Plan (DHAP).....		137
8. References, Technical Resources and Further Readings	.....	155
Annexure 1: Laws, Policies and Instruments pertaining to tribals	.....	160
Annexure 2: Districts with percentage of ST population between 25 % 50 %		167
Annexure 3: Districts with more than 50 % tribal population	.....	168
Annexure 4: Particularly vulnerable tribal groups and their population in India from 1961 to 2001	.....	170
Annexure 5: Special Central Assistance to Tribal Sub-Plan and Backward Region Growth Fund	.....	173
Annexure 6: Tribal-RCH Component in State PIPs of Tribal States	.....	176
Annexure 7: Status of Scheduled Tribes at a glance from the Lessons	.....	187
Acknowledgements	.....	202



Preface

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 working 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.

The Health Mission needs a combination of dedication and professionalism, 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. The immediate context is the National Rural Health Mission. But 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.

This book, the fifteenth book in the PHRN series, attempts to help health planners, managers and civil society groups to recognize and understand the various issues of tribal communities and their impact on health in order to ensure the inclusion of these issues of tribal communities in the District Health Action



Plan. The necessity for planning for 'tribal health' has also been recognized by NRHM which has included Tribal Health separately in Part A RCH II Flexipool for Tribal RCH and in Part B as Special Initiatives under NRHM.

The various lessons cover issues of health and health services in the tribal context. The book discusses the socio-economic factors affecting health and looks at initiatives for overall development strategies of tribal areas and lays out the context and challenges that confront the activists and administrators who seek to achieve health for all in areas which have been marginalized with decades of uneven development. It covers issues of malnutrition, access to health care, gender, malaria, Particularly Vulnerable Tribal Groups. It also lists programmes and laws related to tribal development and analyses the inclusion of tribal health issues and strategies in various State PIPs.

Each lesson tries to first sensitize the reader to the status of tribals with relation to the particular issue and goes on to list the reasons and gaps for it and then how to strategise for improving the situation.

We hope that this module will be used to plan for health in tribal areas and for tribal communities in the DHAP. Planning with tribal communities and for them is essential to ensure their right to dignity and survival.

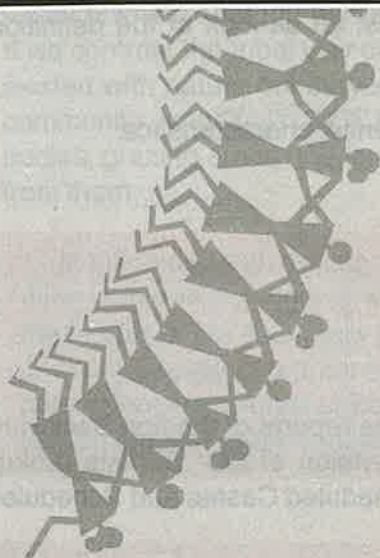


Lesson ONE

Understanding The Tribal Situation

In this lesson we shall discuss:

- Who are described as tribals and where they are found
- The tribal situation and factors responsible
- The historical inadequacies of tribal development programmes
- The impact of the above on the overall situation of health among tribals



WHO IS A TRIBAL?

Defining tribals is a very difficult task. For understanding who a tribal is, let us look at the definition provided by the Constitution and Government of India.

The Ministry of Tribal Affairs defines 'Tribals' as having the following essential characteristics:

- a. Indications of primitive traits
- b. Distinctive culture
- c. Geographical isolation
- d. Shyness of contact with the community at large
- e. Backwardness

The above criteria have been based on definitions in the 1931 Census, the reports of the first Backward Classes Commission (Kalelkar) 1955, the Advisory Committee on Revision of SC/ ST lists (Lokur Committee) 1965 and the Joint Committee of Parliament on the Scheduled Castes and Scheduled Tribes Orders (Amendment) Bill, 1967 (Chanda Committee) 1969.

WHAT DOES THE CONSTITUTION SAY ABOUT TRIBALS?

The Constitution of India, lays down the procedures by which a group or community may be included or excluded as a Scheduled Tribe. However, it does not contain the criteria for the specification of any community as scheduled tribe; this is done by the state government by demonstrating that a community marked as scheduled has the characteristics defined by the constitution.

There are over 700 Scheduled Tribes notified under Article 342 of the Constitution of India, spread over different States and Union Territories of the country but this list is not undisputed. Many communities claim to possess the required characteristics of a tribe but are not part of the Schedule on STs in the Constitution. Also many communities are categorised as ST in one state and SC or OBC in another. Eg, Kol community is categorised as ST in Madhya Pradesh but as SC in Uttar Pradesh. Similarly, Panika community is categorised as ST in Madhya Pradesh but as OBC in Chhattisgarh. Commissions have been set up by the Central Government for making revisions in the ST list from time to time.
(Annexure 1 : Laws, policies and instruments pertaining to tribals)

WHAT ARE THE PROBLEMS WITH THE ABOVE DEFINITION?

One of the major problems with the above definition is characterising tribes as 'primitive', 'backward' and 'shy'. This shows ignorance, disregard and disrespect for the tribal way of life and tribal people. Historically, defining tribal societies in this way has been a result of Colonial (British) way of differentiating them from



Hindu caste society which was seen to be more 'civilised'.

Such terminology also puts the onus for marginalisation on the tribals themselves and is part of the victim blaming strategy (which we shall discuss below).

If we contrast the tribal way of life to modern societies, we see that tribal communities have not only co-existed with nature but served to protect and preserve the eco-system. They have also demonstrated community processes such as the successful sharing of common property resources such as water bodies, grazing areas and forest lands. Thus there is much that the so called 'civilised' society can learn from them.

“...in the nineteenth century the tribal society meant different things to different people. However one thing common amongst all these notions of the “tribal society” was that it considered itself as being on the fringes of the sedentary peasant society. For the British rulers, their distance from the caste Hindu peasant society could serve as a yardstick for how civilised the tribal societies were. It is for this reason that the colonial officers termed these people “wild people” who needed to be “civilised”. Similarly the pastoralists were considered “wandering tribes” who needed to be settled.” (Prasad, 2008)

'Victim Blaming' against tribals

Tribal communities face severe prejudices. These prejudices are often used to dis-empower them. Let us discuss some of these commonly expressed observations and see how far they are based on reality or prejudice.

Prejudice	Reality
Tribal people don't want to get educated	Gross Enrolment Ratio data discussed above shows that in fact enrolment is higher among ST children at elementary level (I-VIII) than total population. There would be less number of STs in higher education as those facilities are not available in the tribal areas.
Tribal men and women are alcoholics	The problem of alcoholism present in tribal societies is not significantly different than in other communities. But in tribal societies there is more visibility as alcohol plays a part of tribal rituals. In contrast, in other societies, it is hidden behind the veil of political correctness. Some tribal communities have seen a rise in alcohol intake and the psychological reasons for this have to be understood as they relate to their losing hope of a better future.

Tribal people are lazy	Nothing can be farther from truth than this statement. Life is not easy for the tribals. Basic amenities in tribal areas are poor. Tribal people have to walk long distances, in difficult terrain for basic household tasks like filling water, bathing, gathering firewood, grazing cattle etc. Earning a livelihood in a resource poor condition is again a task demanding extreme hard work. Most tribals especially tribal women do backbreaking agricultural work, labour and gathering of NTFP (Non Timber Forest Produce).
Tribals are stupid	The tribal way of life was very different from how they have to live today. Theirs was a non-monetised economy and based on oral culture. For them modernisation meant an onslaught of the monetised economy and written documents, something they had no understanding about. This confusion along with low education levels and lack of exposure, made it easier for non-tribals to cheat them. As a result they got characterised as being simpletons.
Government is giving tribals so many facilities but they just don't want to change	Contrary to this, tribal areas have been always neglected. Tribal areas lack basic infrastructure. Basic amenities like safe drinking water, electricity, roads, and means of communication have not been provided. The government investment on tribals is less. Provision of social services like PDS, NREGS, Health services, is very weak.
Tribals are superstitious	The tribals have their own spiritual traditions which the mainstream has never tried to understand, let alone respect. For the tribals, non-availability of services compelled them fall back on their spiritual traditions. It is a fact that superstitions are found across communities and economic and social classes, both in cities and villages.
Tribals are dirty	Tribal homes and habitations in fact are much cleaner as compared to other communities.

The common prejudices against the tribals are related to poor understanding of the tribal situation. It is also an outcome of the 'victim blaming' strategy whereby the powerful blame the victims themselves for their condition and divert attention from exploitation that is often the root of their present poor status. The tribals are highly impoverished and marginalised and blaming them for their own status is a way of abdicating the responsibility the rest of society has.



HOW, THEN, CAN WE DEFINE A TRIBE?

When we try to come to a definition, a tribe may be considered to be a 'historically marginalised community that has not been a part of the caste peasant society'. Apart from this common feature, tribes differ greatly between themselves. Even with regards to occupation, they may be involved in shifting cultivation, hunting and gathering, herding or practising settled cultivation. There are also major differences in terms of language, culture, religious beliefs and social practises. Even amongst various tribal groups, hierarchy and conflicts do exist. Thus it is difficult to speak of tribals across the country as a homogenous entity.

For the purpose of this book, we will use the Constitutional definition of ST.

WHAT ARE DENOTIFIED TRIBES?

There are a number of groups identified as 'denotified tribes, who have been facing brutal atrocities and human rights violations. These are tribes who the British Government of India in 1871 had "notified" as "criminals" and passed the notorious "Criminal Tribes Act of 1871." These people were nomadic cattle grazers, wandering singers, acrobats, etc. and also those who resisted the British aggression from time to time. The logic was that these people lived in forests, or were nomads and only criminals would lead such lives.

Therefore, at the time of independence in 1947, there were thirteen million people belonging to 127 tribes, who faced constant surveillance, search and arrest without warrant if any member of the group was found outside the prescribed area. The government denotified the former "criminal tribes" in 1952 but did not make any provisions for their livelihood. In 1959, Government of India passed the "Habitual Offender's Act" which is not much different from the "Criminal Tribes Act, 1871." From 1961, Government of India, through the state machineries has been publishing state-wise lists of "Denotified and Nomadic Tribes."

The legacy of the Act continues to haunt majority of 60 million people belonging to the these tribes, especially as their notification about a century ago has meant not just alienation and stereotyping by the police, media and society, but also economic hardships.

Today there are 313 Nomadic Tribes and 198 Denotified tribes of India who are subject to inhuman behaviour by rest of the society.

WHERE ARE TRIBES FOUND IN INDIA?

According to the 2001 Census, the population of Scheduled Tribes in the country is 8.43 crores, which is 8.2% of the total population of the country. There is high concentration of tribals in around 125 districts. There are 75 districts with more than 50% tribal population and 50 districts with tribal population ranging from 25% to 50% (Annexure 2).



HOW, THEN, CAN WE DEFINE A TRIBE?

When we try to come to a definition, a tribe may be considered to be a 'historically marginalised community that has not been a part of the caste peasant society'. Apart from this common feature, tribes differ greatly between themselves. Even with regards to occupation, they may be involved in shifting cultivation, hunting and gathering, herding or practising settled cultivation. There are also major differences in terms of language, culture, religious beliefs and social practises. Even amongst various tribal groups, hierarchy and conflicts do exist. Thus it is difficult to speak of tribals across the country as a homogenous entity.

For the purpose of this book, we will use the Constitutional definition of ST.

WHAT ARE DENOTIFIED TRIBES?

There are a number of groups identified as 'denotified tribes, who have been facing brutal atrocities and human rights violations. These are tribes who the British Government of India in 1871 had "notified" as "criminals" and passed the notorious "Criminal Tribes Act of 1871." These people were nomadic cattle grazers, wandering singers, acrobats, etc. and also those who resisted the British aggression from time to time. The logic was that these people lived in forests, or were nomads and only criminals would lead such lives.

Therefore, at the time of independence in 1947, there were thirteen million people belonging to 127 tribes, who faced constant surveillance, search and arrest without warrant if any member of the group was found outside the prescribed area. The government denotified the former "criminal tribes" in 1952 but did not make any provisions for their livelihood. In 1959, Government of India passed the "Habitual Offender's Act" which is not much different from the "Criminal Tribes Act, 1871." From 1961, Government of India, through the state machineries has been publishing state-wise lists of "Denotified and Nomadic Tribes."

The legacy of the Act continues to haunt majority of 60 million people belonging to the these tribes, especially as their notification about a century ago has meant not just alienation and stereotyping by the police, media and society, but also economic hardships.

Today there are 313 Nomadic Tribes and 198 Denotified tribes of India who are subject to inhuman behaviour by rest of the society.

WHERE ARE TRIBES FOUND IN INDIA?

According to the 2001 Census, the population of Scheduled Tribes in the country is 8.43 crores, which is 8.2% of the total population of the country. There is high concentration of tribals in around 125 districts. There are 75 districts with more than 50% tribal population and 50 districts with tribal population ranging from 25% to 50% (Annexure 2).

Of the 700 odd communities listed as ST, many are present in more than one state. The largest number of scheduled tribes is in Orissa (62 STs).

Geographically, the highest concentration of tribes is in the hilly regions of Central (Chhattisgarh, Madhya Pradesh, Orissa, Jharkhand, Andhra Pradesh) and parts of Western India (Gujarat, Maharashtra, and Rajasthan). Central Indian states have the country's largest tribes, and, taken as a whole, roughly 75% of the total tribal population live there, although the tribal population there accounts for only around 10% of the region's total population. The other concentration of tribal people is along the Himalayas from Jammu Kashmir, Himachal Pradesh and Uttarakhand in the west to Assam, Meghalaya, Tripura, Arunachal Pradesh, Mizoram, Manipur, and Nagaland in the northeast. In the northeastern states of Arunachal Pradesh, Meghalaya, Mizoram, and Nagaland, more than 90% of the population is tribal. However, in the remaining northeast states of Assam, Manipur, Sikkim, and Tripura, tribal peoples form between 20 and 30% of the population. The other states have smaller number of tribals.

No community has been specified as a Scheduled Tribe in relation to the States of Haryana and Punjab and Union Territories of Chandigarh, Delhi and Puducherry. (Report08-09)

The table below shows the tribal percentage in various States and UTs

S.No.	State	% of STs in the State	% of STs in the states/ UTs to the total ST population of the country
1	Mizoram	94.46	1
2	Nagaland	89.15	2.1
3	Meghalaya	85.94	2.36
4	Arunachal Pradesh	64.22	0.84
5	Dadra & Nagar Haveli	62.24	0.16
6	Manipur	34.2	0.88
7	Chhattisgarh	31.76	7.85
8	Tripura	31.05	1.18
9	Jharkhand	26.3	8.4
10	Orissa	22.13	9.66
11	Madhya Pradesh	20.7	14.51
12	Sikkim	20.6	0.13
13	Gujarat	14.76	8.87
14	Rajasthan	12.56	8.42
15	Assam	12.41	3.92



16	Jammu and Kashmir	10.9	1.31
17	Maharashtra	8.85	10.17
18	Andhra Pradesh	6.59	5.96
19	Karnataka	6.55	4.11
20	West Bengal	5.5	5.23
21	Himachal Pradesh	4.02	0.29
22	Uttaranchal	3.02	0.3
23	Kerala	1.14	0.43
24	Tamil Nadu	1.04	0.77
25	Bihar	0.91	0.9
26	Uttar Pradesh	0.06	0.13

Source : Ministry of Tribal Affairs Annual Report 08-09

WHAT IS THE SOCIO ECONOMIC SITUATION OF TRIBALS IN INDIA?

Today, it is evident that the one thing which is common amongst the tribals is their historical processes of impoverishment, marginalisation, loss of identity, exploitation by the dominant social and economic groups and lack of appropriate development. Their traditional rights over the Common Property Resources (CPR) like forests, land, rivers have been snatched away from them and regulated in a way which denies them access, let alone control.

These issues are further detailed below.

Tribals and Third Generation Rights

The term "third-generation human rights" remains largely unofficial, and thus houses an extremely broad spectrum of rights. These are especially relevant to tribal communities. Some of these rights are:

- Group and collective rights
- Right to self-determination
- Right to economic and social development
- Right to a healthy environment
- Right to natural resources
- Right to communicate and communication rights
- Right to participation in cultural heritage
- Rights to intergenerational equity and sustainability

Rehabilitation has also been highly inadequate. As a result migration as casual and marginal workers is also very common. Their traditional culture and practices including indigenous forms of medicine have been looked down upon even though they often contribute to their survival and well being. As with other societies, all this has had a more damaging impact on tribal women. Unfortunately a large part of tribal areas today are experiencing violence due to Maoist insurgency which can be seen as a consequence of underdevelopment.

"As tribal people in India perilously, sometimes hopelessly, grapple with these tragic consequences, official tribal policy continues to grope confusedly in a vain attempt to find the golden mean between the two extremes of isolation and assimilation." (Mander, 2004)

Baiga Song Depicting Colonial Impact (Still sung and relevant today)

In this land of the English how hard it is to live

How hard it is to live

In the village sits the landlord

In the gate sits the Kotwar

In the garden sits the Patwari

In the field sits the government

In this land of the English how hard it is to live

To pay cattle tax we have to sell cow

To pay forest tax we have to sell buffalo

To pay land tax we have to sell bullock

How are we to get our food?

In this land of the English

[Recorded By Verrier Elwin and Shamrao Hivale in *Songs of the Maikal*, .316]

1. Increased displacement and lack of proper rehabilitation

Tribal areas are rich in natural resources but ironically any development in those areas has led to further impoverishment of the tribals. Large scale displacement and deforestation has occurred due to development projects like dams, mines, industrial complexes, sanctuaries, and military installations. Tribals have been the most affected by this as their lands have been taken away and forest based livelihoods destroyed with no alternate source of livelihood provided.

The Minister for Environment and Forests stated in Parliament in a reply to Lok Sabha Question no.855, 6.12.2004 that 9.84 lakh hectares of forest land has been diverted for 11,282 developmental projects



since 1980. The conservative estimate of the displaced people is about 8.53 million tribal people which constitute about 72% of all displaced people.

Though nearly all of the mineral wealth is found in tribal areas, the tribals don't gain anything from it. Tribals don't get employment in the mines or industries which come up, especially regular employment. They have to work as contractual labourers with lowly pay, no social security, and their traditional livelihoods taken away.

'45 major minerals (coal, iron ore, magnetite, manganese, bauxite, graphite, limestone, dolomite, uranium etc) are found in Adivasi areas contributing some 56% of the national total mineral earnings in terms of value. Of the 4,175 working mines reported by the Indian Bureau of Mines in 1991-92, approximately 3500 could be assumed to be in Adivasi areas. Income to the government from forests rose from Rs.5.6 million in 1869-70 to more than Rs.13 billions in the 1970s. The bulk of the nation's productive wealth lay in the Adivasi territories. Yet the Adivasi has been driven out, marginalised and robbed of dignity by the very process of 'national development'.'

(Ref. History of Discrimination, Conflict, and Resistance by C.R. Bijoy)

In areas where dams have been built, tribals have only borne the 'brunt' and not got any benefits. They lost their agricultural lands and ones who still own land are not able to take advantage of irrigation.

'Though most of the dams (over 3000) are located in Adivasi areas, only 19.9% (1980-81) of Adivasi land holdings are irrigated as compared to 45.9% of all holdings of the general population.' (C.R. Bijoy, 2003)

To add to the misery of these tribal people, there is lack of proper rehabilitation of the displaced persons. There are inadequate estimates of the actual number of people displaced and rehabilitated. But one study estimates that only 25% of the displaced tribals have been rehabilitated.

Conservative estimate of persons and tribals displaced by development projects 1951-90

Types of Projects	Tribals displaced (Lakhs)	% of Tribals in all displaced persons	% of tribals rehabilitated
Dam	63.21	38.5	25
Mines	13.30	52.2	25
Industries	3.13	25	25
Wildlife	4.5	75	22
Others	1.25	25	20.2
Total	85.39	40.9	25

Fernandes, 1994, pp22-32

Source: Mohanty B. Displacement and Rehabilitation of Tribals, EPW March 26, 2005

Tribal people have also faced displacement due to insurgency situations in many parts of the country.

2. Land Alienation

Data unequivocally shows that Tribal people have been steadily losing land and turning from farmers to labourers and from main workers to marginal workers.

The trend of employment since 1961 is given below:

Sl. No.	Category of workers	General					Scheduled Tribes				
		1961	1971	1981	1991	2001	1961	1971	1981	1991	2001
1	2	3	4	5	6	7	8	9	10	11	12
1	Cultivators	52.78	43.38	41.53	39.76	33.10	68.18	57.56	54.43	54.54	50.90
2	Agri. Labours	16.71	26.32	25.16	19.66	20.30	19.17	33.04	32.67	32.69	28.40
3	House hold industry	6.38	3.55	3.99	2.56	3.90	2.47	1.03	1.42	1.04	1.8
4	Other workers	24.13	26.75	29.32	38.04	42.70	9.64	8.37	11.84	11.76	18.90

Source: Ministry of tribal affairs annual report: 2003-04

The table above shows the increasing conversion of schedule tribe people from agricultural on-farm producers to labourers. This is largely due to the fact that there was land alienation in the tribal areas, both for public purposes as well as in distress. As discussed above, since many of these areas were resource rich they felt the direct impact of the strategy of harnessing for natural resources for national development. Land alienation also took place through benami transactions due to indebtedness and distress sales. Even though there was legal protection against these actions, the marginalised people were unable to resist these processes.

When we look at the redressal by Courts of tribal land alienation, the available data shows that the tribals approaching the Courts have got justice in majority of cases. However, most of the tribals dispossessed of their land may not have moved the courts of law for restoration of his land due to their ignorance, lack of general awareness, and of course, poor financial resources. There would also be a large number of illegal and coercive transfers which are not included in the number of cases filed in the courts.

3. Decreasing access and control over forests

Tribals have traditionally had a very close relationship with forests. Forests have been their source for sustenance, be it economic, social or spiritual. Even today, a large number of tribals live in forests or forest fringes.



A large part of tribal economy is dependent on collection and sale of NTFP like mahua, tendu leaves, sal seeds, chironji etc. But they are not able to get remunerative rates for the produce they collect. They get cheated by middlemen in absence of suitable procurement support from Governments in many states.

Tribals have cultivated land in the forests for generations but have been denied any ownership over them. Even today, they are called encroachers. According to a reply to a Starred Question No 336 in the Lok Sabha dated 18.04.2005 Minister of State for Environment and Forests replied that from "the reports received from various State/Union Territory Governments, about 13.43 lakh hectares of forest land is under encroachment in the country. This is approximately 0.203% of the total forest land in the country." As a result they are continually subjected to threat of eviction. This makes them easy prey for illegal extortion by staff of the forest department.

As we saw above, Sanctuaries and National parks have displaced large numbers of tribal people. "The total forest cover in India is reported to be 765.21 thousand sq. kms. of which 71% are Adivasi areas. Of these, 416.52 and 223.30 thousand sq. kms are categorised as reserved and protected forests respectively. About 23% of these are further declared as Wild Life Sanctuaries and National Parks which alone has displaced some half a million Adivasis." In addition to displacement, the formation of the sanctuaries and parks has limited their access to forests. Collection of Non- timber forest produce (NTFP), which forms a major part of their income, has been restricted.

Deforestation as a result of state sponsored felling, illegal fellings, industrial projects and dams is totally destroying the economic and social fabric of the life of forest dwellers. For centuries tribals have coexisted with nature and now with the forests being denuded by government projects and industries, they are facing the pain of having to adapt to an alternative way of life which is alien to them. This kind of market driven development resulting in the loss of irreplaceable forest resources is driving the death knell into the one time self sufficiency and food security of people living in the forests and causing irreversible damage to the environment. The impact is most severe on women. Studies have shown that ecological destruction has led to the increase in disease burden. Deforestation is changing the habits of disease carrying insects. As a result there has been a resurgence of diseases like TB, malaria and gastroenteritis (Refer to Lesson 4 and 5).

Many tribal groups, whose traditional livelihoods was dependent on bamboo and other forest produce which have now been destroyed, are at the point of extinction due to loss of livelihoods and abject poverty.

The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act (see annexure 1) is an opportunity to award long awaited rights to the tribal and other forest dwellers. This Act recognises the right of the tribals over the land and forests they have been cultivating and protecting for generations. But its implementation is very slow and has to speed up in order make any real difference in tribal people's lives.

4. Food insecurity

Due to all the above processes that the tribals have been subject to, they are today faced with the grim reality of food insecurity.

Most tribals are marginal farmers. When we look at the size of land holdings of tribal people (table below), we see that nearly half of the tribal cultivators have only upto 1 hectare of land.

Size of holding (hectares)	No of Holdings (in Million)	Percentage of all tribal cultivators
Upto 1 hectare	4.38	46.0
2 to 3	3.54	17.7
4 to 5	0.92	9.7
6-10	0.54	5.7
Above 10 Hect	0.14	1.4

Source: Prasad, Archana 'Tribals, Dikus, and the Vision of a Golden Age', in Our Pasts III (Part 1), New Delhi: National Council for Educational Research and Training, 39-50, 2008

Secondly, the quality of land owned by tribal farmers is poor. Their lands have received hardly any investments. 83% of ST land holding is single cropped. The access to irrigation is very limited. Only 19% of ST land has irrigation facility. Further, they lack the capital to buy the needed inputs and carry out operations like weeding on desired scale and frequency. As a result of all these factors, the food production of a tribal family is hardly sufficient even for half the year. Apart from cereals, other food items like pulses, oilseeds etc are also scarce in tribal households.

Another aspect of tribal food insecurity is their loss of pride in their traditional foods. The cultivated area under hardy, low-risk crops (like many kinds of millets) has been shrinking. The situation has worsened with the promotion of monoculture based commercial agriculture. This has exposed the tribals to high risks. Loss of traditional seeds is another big threat to tribal food security.

Apart from farming, forests were another source of nutrition that also helped tribal communities in surviving periods of food shortage. Declining forest cover and reduced access to remaining forests has undermined this source of food security.

When food has to be bought from the market, having employment round the year is important. But, a look at the patterns of employment shows that there is an increase in the tribals as marginal workers and a sharp decline in the number of tribals who get 180 days of work. This continues to show the impoverishment of tribals.



Patterns of Schedule Caste & Tribe Employment (Percentage of Population)

Category of work	Schedule	Tribes
	1991	2001
Total Workers	49.3	49.0
Main Workers	42.02	33.8
Marginal Workers	7.02	15.2
Non Workers	50.7	51.0

Source: Prasad, Archana 'Tribals, Dikus, and the Vision of a Golden Age', in Our Pasts III (Part 1), New Delhi: National Council for Educational Research and Training, 39-50, 2008

Many tribals have had no option but to migrate to cities and other states in order to survive economic hardship. Most often than not they end up as cheap labour and work under inhuman conditions without any social security. As C.R. Bijoy writes, 'in the rich mineral belt of Jharkhand, the Adivasi population has dropped from around 60% in 1911 to 27.67% in 1991. These developments have in turn driven out vast numbers of Adivasis to eke out a living in the urban areas and in far-flung places in slums. According to a rough estimate, there are more than 40,000 tribal domestic working women in Delhi alone!'

Adequate coverage and support under government run food security programmes like Public Distribution System become critical in this grim scenario of food insecurity. But as our further lessons show, the access of tribals to these programmes is still far from adequate. But the recent expansion of programmes like NREGS and Mid-day meals is a ray of hope.

5. Education

Literacy has come recently to tribal areas. Decades of neglect towards these areas resulted in less schools and very low literacy levels. But the situation has improved since then. Schools have come up and literacy levels have improved from 8.53% in 1961 to 47.10% in 2001.

Literacy Amongst STs and all Social Groups

Year	Schedule Tribes			All social groups		
	Male	Female	Total	Male	Female	Total
1961	13.83	3.16	8.53	40.40	15.35	28.30
1971	17.63	4.85	11.30	45.96	21.97	34.45
1981	24.52	8.04	16.35	56.38	29.76	43.57
1991	40.65	18.19	29.60	64.13	39.29	52.21
2001	59.17	34.76	47.10	75.26	53.67	64.84

Source: Registrar General of India

There is a perception about tribal people that they don't send their children to school. But this is a myth as the Gross Enrolment ratio amongst ST students for elementary stage (I-VIII) is very healthy and in fact higher than that of total population.

Gross enrolment ratios (GER) for elementary stage (I-VIII)
Figures in Percentage

Schedule Tribes				Total Population		
Year	Boys	Girls	Total	Boys	Girls	Total
1995-96	105.7	75.1	90.9	86.9	69.4	78.5
1999-2000*	99.3	70.9	85.2	90.1	72.0	81.3
2000-01*	102.5	73.5	88.0	90.3	72.4	81.6
2001-02*	99.8	77.3	88.9	90.7	73.6	82.4
2002-03*	86.7	73.9	80.5	85.4	79.3	82.5
2003-04*	90.6	81.1	86.1	87.9	81.4	84.8
2004-05*	108.5	95.8	102.4	96.9	89.9	93.5

* Provisional

Source: Ministry of Human Resource Development

But serious issues exist with regards to quality of education. There is high degree of teacher absenteeism in tribal areas and the student to teacher ratio is very high. There are a large number of single teacher schools where one teacher has to teach from Class I to V. For most tribal families, the current generation is the 1st or at the most 2nd generation literate. As a result the students are not able to get any help with their studies from their parents and poverty prevents them from looking for alternative help.

6. Political insignificance/marginalisation of tribal communities

Tribals have not managed to form a unified political force, nationally or even regionally. "In all ten states with the highest absolute numbers of tribal people, tribals are consistently in a minority. This has serious repercussions for their political bargaining power. The sheer diversity of Scheduled Tribes is another barrier to their political mobilisation" (Mander, 2004). There have been some exceptions like the tribal movement in Jharkhand, for formation of a separate state. Another example is of a political party active in central India's Gond belt but it has remained restricted to one tribe and has not emerged as a big socio-political movement.

Tribal issues have got neglected in the mainstream political discourse. Further, tribal identity itself is under threat with strong cultural onslaught from organised religions and related political formations.

Tribal people have managed to assert themselves in small ways despite centuries of marginalisation.



Today there are a number of tribal organisations which have managed to influence the governance and policies at the local level and also at the national level as part of larger campaigns like the Right to food Campaign, Campaign for survival and dignity, National Alliance for People's Movements, People's Health Movement and Adivasi Mukti Sangathan. Today a number of these movements are centered around issues of displacement, forests rights, land alienation and lack of social services. At the local level, reservations for STs have also allowed the tribes with relatively better access to education to secure government jobs and thus a higher political status. In Schedule V and IV areas, tribals head the Gram Panchayats and it has also gradually improved their position.

The Panchayats (Extension to Scheduled Areas) Act or the PESA Act was passed by Indian Parliament in December 1996 (see Annexure 1). This Act gives powers of governance, control and rights over resources to gram sabhas and panchayats in tribal areas. Though this Act is seen as promoting tribal self governance, its implementation in the states has been unsatisfactory. The states have not amended their Panchayat acts accordingly nor made the necessary rules to facilitate the provisions. The proper implementation of this Act is very important in giving back some amount of autonomy and power and thereby dignity to tribal communities.

7. Tribals in conflict areas

A large part of tribal areas have been affected by Maoist insurgency. In the fight between the Maoists and the state, it is the tribal people of the area who suffer the most. In these areas the government machinery has broken down along with social services like education and health. A large number of tribals have been displaced. The severity of the situation has led to a sense of insecurity and a number of mental problems amongst the people of the area. Malnutrition levels have increased due to breakdown of the economy and there is high mortality and morbidity due to lack of health services.

Many children were noticed to be obviously malnourished with potbellies and wasting of their gluteal muscles. The team came across a number of persons with quite severe illnesses. One patient, a 45-50 year old man complained of typical symptoms of a currently bleeding peptic ulcer - for which he was not taking any medicine. Our team gave him basic treatment and advised him to be taken to the CHC. On receiving news that a medical team was in the camp, a woman approached us in the 7th month of pregnancy; she had fallen down two days ago, and since that time had not felt the movements of the fetus. The team could not locate the fetal heartbeat suggesting that the baby had probably died. One of the team members also performed an incision and drainage of a huge abscess on the leg of an 18-month old child, draining a huge amount of pus. Another young adult with an abscess on the foot was also treated similarly. All of these cases obviously reflected a large amount of untreated morbidity in the camp. Camp residents reported that in the last 6 months there were 13 to 14 deaths in the camp, of which 7 were attributed to Maoist violence.

(Ref: JSA/MFC report on Dantewada, Chhattisgarh, 2007)

8. Neglect of tribal health traditions

Tribal medicine has been practised for centuries and passed on as an oral discipline and through apprenticeship, but there has been little documentation of this body of knowledge. As a result it is likely to have undergone many changes and been distorted by other forms of medicine. Very little attempt has also been made to study the efficacy of this tradition though anecdotal reports of its efficacy abound in folklore. It is important that this discipline also be studied and integrated in the same way as the AYUSH.

A Perspective on Indigenous Forms of Medicines

"4. Integration of modern medicine and traditional knowledge in health is an idea that has been discussed from the time of the Independence struggle even before 1947, as a way of dealing with people's health problems and the basis for planning a health system for India, based on the premise of the inherent worth of these systems. Drawing upon the strengths of all health knowledge and strengthening health care bottom up, from the home or community/village based measures that are accessible to the rural and poor, right up to health centers, dispensaries and hospitals of all systems were the underlying arguments for such a framework proposed for development of health services in India.

5. In the post-Independence period, while colleges of ISM & H (Indian System of Medicine & Homeopathy) increased, (almost equaling the number of graduates produced in modern medicine), and the network of dispensaries and hospitals was expanded markedly, a one-way integration occurred in the form of incorporation of the concepts of the modern medical science into the curriculum of the ISM & H graduates. Also, despite the enlarging institutional infrastructure, ISM & H received only 3% of the government's health budget. Little attention was given to quality of infrastructure or services of the ISM & H. The dominance of modern medical science and technology was 'established'.

6. As distinct from AYUSH, Local Health Traditions (LHT) (home remedies and dietary practices for health; folk practitioners including herbalists, bone-setters, masseur, traditional birth attendants and faith healers) too have been recognized for their usefulness and people's access to them. Ethnobotanists have studied the properties of medicinal plants and herbs. A large number of NGOs have worked to document and sustain their use. However, the access to the medicinal plants and herbs as well as the legitimacy of these practices has declined.

7. On the other hand, people continue to use ISM & H as well as LHT, Their worth is being widely recognized, especially to supplement modern medicine in areas where it has limitations. There is also a growing recognition of the worth of TM (Traditional Medicine) and LHT even within modern medical science, and there is growing international demand for them. Yet the system of dominance is modern medicine or Allopathy in the Indian health system. Therefore, there is a need for 'mainstreaming of AYUSH' within the health service system and for 'revitalizing LHT' in the community."

(Mainstreaming AYUSH and revitalising local health traditions under NRHM: A Health systems perspective by National Health Systems Resource Center, New Delhi 2009)



HISTORICAL INADEQUACIES OF TRIBAL DEVELOPMENT PROGRAMMES

When we look at the history of tribal marginalisation and deprivation, we find that at the dawn of independence the tribal people had already lost their rights over their forests and lands. The consequent impact of measures during the colonial period, like land settlements, forest laws, and segregation of tribal people from their local economy, converted these people from producers to providers of cheap labour and raw materials.

The Constitution provided some guarantees to the tribal people mainly through the institutional mechanism of the fifth schedule areas and the sixth schedule areas. Multipurpose block development programmes were to carry out the integrated development of tribal areas. But an evaluation of the Multi purpose Tribal Block Development Scheme just before the Third Plan showed that the level of expenditure in these areas was abysmal.

By the beginning of the 1970s (end of the fourth plan) it was well recognised that the situation had not improved substantially and the Commissioner of Schedule Castes and Tribes reported the following problems with the block level programmes in 1973:

- Large numbers of standardised schemes were in vogue for the tribal block development programmes with no specialised programmes for either the SCs or STs.
- The employment aspect of development had not been attended to in either case.
- Settlement of land disputes in the pre-extension stage had not been taken up.
- 60-70 per cent of the schemes were only spent on brick and mortar schemes.
- In many cases co-operative societies were started without the knowledge of the people.
- More advanced sections of tribal population area were able to take advantage of various schemes undertaken in the blocks.
- Block authorities started schemes in areas that were easily accessible and it is rarely that schemes were started after ascertaining the real needs of the people inhabiting these areas.

Given the above experience, it was realised that the tribals would not benefit unless an area based approach was followed. Therefore the Sixth Five-Year Plan propagated formulation of Integrated Tribal Development Programmes (ITDP) and Modified Area Development Plans (MADA). The goal of self-reliance was a significant shift away from the welfare measures that the state had been espousing earlier. It was also a step towards the development of the local economies of the marginalised people. Thus the tribal sub-plans and the special component plans made it a mission to prepare area level development plans in order to bring out the integrated development of marginal areas. But the greatest failing to this area based approach however was that it did not include any coordination with local self governments, neither did they involve hamlet based tribal institutions in implementation of initiatives in remote areas.

The era of Economic reforms from late 1980s onwards led to reduced availability of funds as reflected in the 8th and 9th plans. Another change in the approach was special emphasis of non-governmental organisations (NGOs) to provide services in marginalised areas which undermined the states responsibility towards these areas.

HOW DO THESE ISSUES IMPACT THE HEALTH STATUS OF TRIBAL PEOPLE IN INDIA?

All the issues discussed above are underlying causes for poor health status of tribals. Issues of non-availability of adequate and quality healthcare, poor access due to geographical remoteness, traditional beliefs and customs, poor integration of tribal health traditions, lack of awareness, and environmental conditions contribute more directly.

Tribal areas are marked by high mortality, rampant malnutrition and endemic diseases. It is clearly known that the health status of tribals is the poorest among all social groups. This is reflected in their high mortality rates and low life expectancy. A child born in a tribal family has 53% more chance of dying before the age of 5 than a child born in a general caste family. Malnutrition is rampant with widespread chronic hunger. Tribal areas are high malaria endemic areas with predominance of *Falciparum* malaria. Repeated epidemics of gastroenteritis are also common. Other communicable diseases like tuberculosis, filaria and specific conditions like sickle cell anaemia, goitre have high prevalence in various tribal pockets. Anaemia is high especially amongst children and pregnant women. Large numbers of women die due to birth complications and poor access to care resulting in high maternal mortality rates. The overall healthcare scenario is of poor access and availability of services. We will deal with all these issues in detail in the subsequent lessons.



Review questions:

1. What is the problem with the way tribals are usually defined in government documents?
2. What are some of the prejudices against tribals?
3. How is decreasing access and control over forests affecting the tribals?
4. What have been the inadequacies of Tribal Development Programmes since Independence?

Application questions:

1. What are the tribal groups in your area? What proportion of population do they form?
2. Form two groups and conduct a debate on the following topic: 'Tribals are themselves responsible for their situation'

3. 'Tribals have borne the brunt of development'- Explain this statement with examples, especially related to forced displacement of tribal population. You should refer to other sources.

Project Assignment:

1. Visit one poor tribal family and understand their sources of income and how they cover their health expenditure.

NOTES





Lesson TWO

Fighting Mal-Nutrition In Tribal Areas

In this lesson we shall discuss:

- The central role of nutrition in combating ill-health
 - Nutritional status among tribal people
 - Reasons for the low nutritional status
 - Strategies for improving nutritional status of tribal people
- 
- 

It has long been established that a malnourished person is more likely to fall prey to communicable diseases like malaria and diarrhea due to compromised immunity. This is most easily observable in tribal areas where despite having relatively cleaner surroundings, the infection burden and mortality is still very high.

NFHS-3 data provides the following comparison on nutritional status of children under age of 3 years.

	Under-weight	Wasted	Stunted	Severely Underweight	Severely Wasted	Severely Stunted	Moderately or Severely Anemic
ST Children	54.5	27.6	53.9	24.9	9.3	29.1	50.5
Children from all communities	42.5	19.8	48	15.8	6.4	23.7	41.1

The nutritional status of tribal adults is also considerably worse than other communities.

	Women with BMI<18.5	Men with BMI<18.5	Anemic Women	Anemic Men
ST	46.6	41.3	68.5	39.6
All communities	35.6	33.7	55.3	24.7

Another study in tribal areas of Madhya Pradesh found high prevalence of under-nutrition amongst the adolescents in terms of underweight (61.7%), stunting (51.7%) and wasting (32.8%) and anemia (82.3%).

WHAT ARE THE FACTORS AFFECTING NUTRITION IN TRIBAL AREAS?

1. Poverty and Food Insecurity

The roots of malnutrition lie in poverty and food insecurity and this is more true for tribal communities than for any other community. As many as 41% of the tribal men are malnourished. They get the favourable deal in intra-household distribution of food but yet they are malnourished. Why? This perhaps points out to absolute lack of food security amongst large number of tribal households. National Nutrition Monitoring Bureau's data shows that the per capita consumption of pulses, milk, oil, vegetables and fruits amongst tribal population is far below the Recommended Dietary Allowance (RDA). Only 10% of tribal children get the recommended amount of fat. Only 30% get the required amount of calories and protein. Another Study on 'Diet and nutrition status of children in four tribal blocks of Thane district of Maharashtra' found that the average calorie intake was less than the RDA by 23% and protein 30% less than the RDA.



Munnalal Adivasi Sahariya is a resident of Tapia hamlet who lost his one year old daughter a week ago. According to him his child was also weak and was unable to move about. Two days before her death the child had a bout of loose motion and vomiting. The ANM of the village does not come at all and so the weakness of the children goes unnoticed. Munnalal is a daily wage earner working in the quarry near the village. According to him the villagers have to face very grave and critical situations when the quarrying is stopped during the rainy season, which extends to up to 4 months. During this time the villagers face severe food scarcity and insecurity. In times of scarcity the villagers eat "Samoi Grass" which is very difficult to digest. The villagers collect the seeds of the grass, dry it and grind it into powder which they mix with a little wheat flour, because, it is very difficult to swallow the rotis made of the grass. He said that during this period the villagers feed their children also with these rotis, which have little or no nutritional value.

(Source: Sachin Jain (2005) Children in Danger: Malnutrition deaths in Vidisha district of Madhya Pradesh, Report to Right to Food.)

Most of the tribal families are not able to grow enough food for their own consumption. A study in tribal district of Panchmahal in Gujarat showed that only 10% of tribal families were food secure around the year and 74% of tribal families were food secure for less than six months in a year. Food insecurity becomes more severe in summer and monsoon months.

During the drought period in Sheopur district in Madhya Pradesh, about 60% people from many villages of Sabalgarh Tehsil migrate leaving behind only the children and the elders or those who are incapable of doing any work. The problem of drought aggravates further, because people may survive by eating bread made out of 'sama' grass, Birchan or Laltana. People travel 2 - 5 kilometers to fetch water, particularly in a situation when they need to devote more time in search of labour work to earn their livelihood.

The food crisis is so alarmingly intense that the Mushar tribe in this area chase the rats, reach up to their holes, dig them up and collect the cereals so collected by these rats. Upon cleaning, they prepare their meals out of such cereals. Similarly, cow-dung also contains some undigested grains of wheat and after cleaning the same; these people use them simply to avoid death from hunger. This in itself speaks of the appalling situation prevailing in this region. Once this Mushar tribe was known in the society for its expertise in assessing the conditions of soil and earth and people used to solicit their assistance for making a pond/tank or water reservoir, but today they are left to chase rats for their very survival.

Source: Sachin Jain (2006): Poverty, migration and national rural employment guarantee scheme: a case study on saharia primitive tribal group in Madhya Pradesh. Right to food campaign

2. Inadequate Access to Government Programmes

The actual level of access of tribal people to food security programmes from Ration shops, Anganwadis etc. is also poor. As per NFHS-3, only 15% of children living in tribal hamlets having Anganwadi Centres received regular supplementary food. Incomes from other sources like forest produce and wage labour

is also inadequate to buy all the foods needed by the family. The traditional forest based livelihoods are dying down.

The recent deaths in Hindiyakalan are due to starvation, the government's negligence in this particular matter is clear. In just three hours spent in the hamlet, we noticed three glaring examples of this neglect. First, in May 2003, following reports of starvation deaths in Baran district (Rajasthan), the Supreme Court of India in the "right to food case" had ordered that all PTG households (along with other vulnerable groups such as widows and single women) be covered fully by the Antyodaya Scheme. In Hindiyakalan, this Supreme Court order was being violated, more than five years after it was issued: we met members of at least two households who did not have Antyodaya cards (including Mansabad Birhor, whose wife died recently).

What made this particularly shocking was that a special drive to extend the coverage of Antyodaya to all PTGs had just been completed, in the wake of the storm over starvation deaths in Jharkhand. This reflected poorly on the administration's resolve to deal with the situation.

Second, among those who got new Antyodaya cards as a result of this "special drive", some had already been cheated. For instance, we found fake entries in the cards of Ramdev Birhor and Sanghar Birhor. These cards were distributed after 5 October, but we found entries dated August 2008 according to which they were given 20 kg of rice, 13 kg of wheat, 3 litres of kerosene and 10 kg of salt. Both Ramdev and Sanghar denied having received these rations. It was hard to believe, but sadly true, that such fraud continued even as people were dying, the issue was in the limelight, and politicians and senior government officials were regularly visiting the hamlet.

Source: Starvation Deaths and "Primitive Tribal Groups", Reetika Khera, EPW, December 27, 2008

3. Depleting Forest Resources

There are reasons to believe that tribal nutrition was in better condition earlier. The decline started with their loss of access to forests. Tribal diets today are cereal heavy with other necessary components being less available. Traditional tribal diets had lot of variety in terms of various kinds of meat, wild fruits, forest floor mushrooms, green leafy vegetables which were available in different seasons. The availability of these important foods deteriorated as deforestation took place and restrictions were placed on collecting forest produce from forests. Thus tribal people had to depend more and more on buying their food from market which they could ill afford.

Another aspect related to tribal food insecurity that needs to be understood is regarding the tradition of eating poor quality and sometimes inedible items. It is common to hear that in impoverished tribal areas, tribal people are eating mango kernels, grass seeds etc. These items are neither tasty nor nutritious. Then why do tribal people eat them? This reflects the hunger that many tribal areas face. Eating such



items gives a feeling of stomach getting filled. Therefore the belief that tribal people eat such things out of ignorance or stupidity does great injustice to the starving tribal communities.

4. Changing social aspirations of tribal communities

Some sections of tribal communities feel that they have got left out of the mainstream and want to join it. They tend to try to adopt behaviours of mainstream upper caste communities. As a result they also start feeling ashamed of their own cultural practices including the ones related with food. Along with changing food habits according to what is acceptable or 'honorable' in mainstream society, this has also changed their perception of what constitutes good quality food. For example, tribal people giving up non-vegetarian food, reducing cultivation of traditional millets, eating less of wild vegetables etc. weakened tribal diet. Thus tribal people are eating more of polished rice or potato which comes from outside and have started to look down upon their traditional foods. The substitutes for the proteins and minerals they got from these traditional sources most of which was home grown or gathered, have now to be bought from the market and are well beyond what the tribal society can afford. Nutrition messages from the health sector also never emphasise their traditional foods or try to build upon them. This factor is slowly destroying much of the traditional dietary diversity enjoyed by tribal people.

5. Malnutrition among tribal a neglected issue

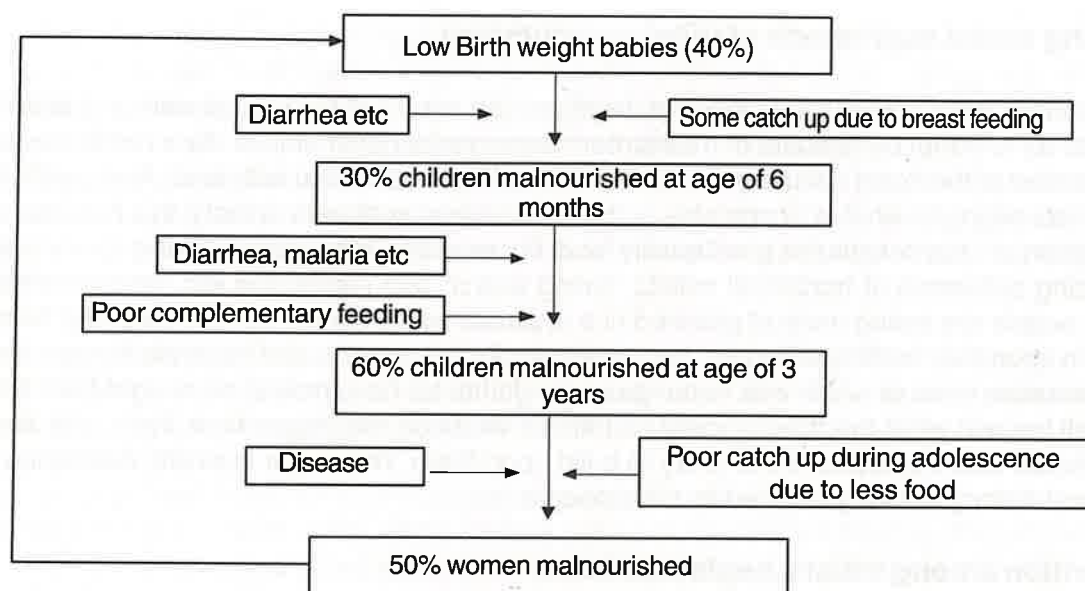
Finally, malnutrition, especially amongst tribal people, remains a neglected issue at all levels. The issue of malnutrition is highly under-recognised in government, media or larger society. Even the communities affected most by malnutrition are not aware of this problem. People in tribal areas get used to seeing malnourished children all around and start treating them as 'normal'. It is not recognized as a grave problem that it is. Thus malnutrition rarely becomes a political issue demanding urgent action. Even programmes like ICDS (anganwadi programme) tend to under-report and under-recognise this issue. It is common to see the programme treating Grade I and II malnutrition as not-serious and thus trivializing it. The programme puts emphasis on Grade III and IV malnutrition as 'serious' malnutrition but under-reports the number of children in these grades to such an extent that the size of the problem gets hidden.

VICIOUS CYCLE OF MALNUTRITION

Around 40% of tribal children are born with Low Birth Weight. This is a result of low nutrition being passed from one generation to other. A large proportion of tribal mothers are malnourished. There are highly prevalent anti-woman traditions too like placing restrictions on eating of large number of items by women during pregnancy, post-natal period and lactation period. Household level availability of certain foods is also poor.

As a result of poor feeding and inadequate access to healthcare during pregnancy and delivery, large number of tribal children are born underweight.

Let us try to understand the reasons for poor nutrition amongst tribal people starting from birth itself and looking at the entire life cycle.



STATUS OF NUTRITION AMONGST TRIBAL CHILDREN

Tribal Children are far more malnourished than non-tribal children. More than half of the tribal children are malnourished. The extent of life threatening severe malnutrition is also very high amongst tribal children. For instance, the share of malnourished children is 79% in under six deaths in Melghat region in Amravati district of Maharashtra. Melghat consists of two tribal blocks with approximately 70% tribal population.

Many low birth weight children die in neo-natal stage. Some children catch up as they reach six months of age mainly due to predominant breastfeeding. But the catch-up is not as significant as it should be. This has to do with specific behaviours related to breastfeeding. Contrary to popular belief, there are number of gaps in breastfeeding related behaviours amongst tribes too. NFHS-3 points out some of these gaps:

	% of newborn children given Pre-lacteal feeds	% of newborn who start getting breastfed within 1 hour of birth	Average no. of months of exclusive breastfeeding	Average no. of months of predominant breastfeeding
ST	43.2	28.5	2.9	6.2
All Communities	57.2	24.5	2	5.1



Thus though some of the breastfeeding behaviours are relatively better amongst tribes when compared with other communities, huge gaps do exist. Some of the gaps like in early initiation of breastfeeding are related to some irrational traditional practices. But another factor that of workload of women makes a big negative impact in tribal areas. Tribal women shoulder much larger workload related to household work, agriculture, forest produce collection and sometimes even wage labour work. As a result, it becomes more difficult for mothers to be close to their babies to ensure exclusive breastfeeding. Thus, there are illnesses like diarrhea which affect children who do not get exclusive breastfeeding for six months. Consequently, children do not gain weight as desired during first six months of life and there is only a small decrease in malnutrition in this phase.

The period from six months to three years becomes even more difficult for children as breast milk is no longer sufficient and complementary feeding has to start. This gets delayed for a large number of children and the reasons are associated to some extent with traditional practices but largely with high workload on women allowing less time being available for child care. Further the mothers get very inadequate support from rest of the family in this task. Thus the frequency of feeding is poor. The quantities fed are also small and the variety in foods is also poor. NFHS-3 reports that only 24% of tribal children (6months to 2 year old) get more than 3 varieties of food in a day. Some of this again relates to lack of knowledge but issues of food availability also become critical as few tribal families have adequate access to high quality foods like milk, poultry, meat, fruits, oil and sometimes even pulses and vegetables. Their access to iodised salt is also lower (only 37% tribal households have access to iodised salt as per NFHS-3). An average tribal child (under age of 3) gets to consume only half the number of calories that it needs. A study of pre-school children in Bastar, Sarguja and Jhabua found that 60% of calorie requirement was fed in Bastar & Sarguja and only 35% in Jhabua. In terms of pulse consumption, Children in Bastar got 13 grams of pulse and in Jhabua got only 7 grams of pulse per day against the requirement of 35 grams per day.

Above factors along with recurrent episodes of diarrhea, malaria etc. result in sharp increase in number of malnourished children. By age of three, around 70% of tribal children end up being malnourished. It becomes more difficult to reverse this malnutrition during rest of the childhood.

As adolescent age comes it provides another opportunity for catching up. But adolescent girls are often discouraged to eat more rather than being encouraged to do so. These restrictions result in many girls losing this opportunity. Issues of access of food also play their role and as a result around half the tribal girls grow into malnourished women. Thus the cycle repeats itself.

Strategies for improving Tribal Nutrition:

A. Combining nutrition communication with Social Mobilisation :

There can be several ways to bring the much needed social attention on the issue of malnutrition. But to make a large scale impact it nutrition communication would have to go along with considerable

social mobilization. These are communities where their current high levels of malnutrition have become the norm and people have been living with it. To give them the confidence and optimism that things can change, communication messages need to be combined with mobilization. Some examples of ways in which health planners can contribute to this are

1. Campaign on Mass weighing of children and communicating grades to the village: In order to raise community awareness regarding the high level of malnutrition, a campaign can be organized with help of ASHA, Anganwadi workers, Panchayats, female and male health workers in which a team reaches each village and gathers villagers and does weighing and grading of village children in front of them. The activity of weighing is able to attract attention. Then the grade of each child should be communicated to the community. Also, the meaning of each grade should be communicated. Finally, the overall proportion of malnourished children should be communicated. This can help the community in realizing the extent of malnutrition that affects its children.

Similar activity can be done by computing BMI (Body Mass Index) of adults. For example in one block a women's organization did large meetings of women every six months. All the women coming to the meeting had their weights and heights measured and women with BMI below 18.5 were tied white bands on their wrists and women with higher BMI got red bands. In the meeting when all the women with white bands were asked to raise their hands. This was followed by the women having red bands raising their hands. At once, the people realized that about half of the women were malnourished. They could also observe the progress in reducing malnutrition by doing the exercise in their subsequent meetings.

Can such activities be planned with SHGs and their federations in your area?

2. Kala Jatha, Film shows: Cultural troupes (Kala Jathas) can be used for spreading awareness on malnutrition. Film shows can be a more cost-effective way of doing this. A film on problem of malnutrition can be showed in large number of villages with help of Anganwadi workers or ASHAs. These days VCD players are easily available even in tribal areas.
3. Anti-Malnutrition Rally: In one state, this was used on a statewide scale to spread social awareness on malnutrition. It was a collaborative effort between ICDS, Panchayats and ASHAs. Rallies were organized in every village through which people were told about the extent of malnutrition in their village. This also received fair amount of media attention.
4. Conducting surveys on Nutrition Programmes: Mass surveys can be attempted with easy one page formats on status of implementation of food and nutrition programmes in tribal areas with help of ASHA, VHSCs, Panchayats etc. These surveys apart from yielding an assessment for block level use, would help in raising mass awareness on the provisions of various schemes and also help communities in assessing their own access to their entitlements.



5. Including 'Nutrition' as an important agenda for Village Health & Sanitation Committees (VHSCs) and ASHA, ANMs: Under NRHM, VHSCs provide a platform where integrated local health planning can be initiated. By training VHSCs and giving 'nutrition' prominence in their curriculum, perceptions of community leadership on this issue can be shaped. Similarly, nutrition needs to be a highly prominent part of ASHA curriculum. ANMs also need to be taught about malnutrition in their training.
6. Giving 'Nutrition' prominence in DHAP: Formulation of District Health Plans also offers another opportunity to highlight the issue of malnutrition. It should figure in the Situational Analysis and Strategies. Example, it should try to bridge the gap in availability of weighing machines and hemoglobin-meters with ANMs so that nutrition status of at least pregnant women can be measured.
7. Improving Nutrition Surveillance: As discussed earlier, there is lack of reliable periodic data on nutrition status. DHAPs can aim to strengthen nutrition surveillance. Example as a first step it can start identifying all Grade I and II children through ASHA- Anganwadi worker joint weighing campaign.

B. Role of Nutrition education

Educating families and communities on nutrition related behaviours can help in overcoming some gaps related to knowledge and practices. Infant and Young Child Feeding (IYCF) is well recognized methodology of educating families on feeding behavior. It requires a community health worker (like an Anganwadi worker or ASHA) to make home visits to families with children below age of three and counsel them on a variety of behaviours like:

The issues that have been found to be important to be included in the Nutrition education initiatives in the tribal context are:

Breastfeeding: There is a common perception that breastfeeding is not a problem area in tribal populations. But studies have pointed out critical gaps that exist in breastfeeding related practices in tribal areas. Pre-lacteal feeds are very common to be given to newborn in tribal families. It is also common to find that colostrum is discarded and proportion of children getting colostrum feeding is low. Another very important issue is of delaying the initiation of breastfeeding for newborns. Only 28 % (NFHS-3) receive breastfeeding within an hour of birth. Tribal populations show better performance in maintaining exclusive breastfeeding. The average length of exclusive breastfeeding for tribal infants is around 3 months whereas the national average only 2 months. But it is still far below the desired level. Therefore nutrition education in tribal areas should focus on these specific issues.

Complementary Feeding: This is perhaps the most critical gap in child feeding in tribal areas. Complementary feeding for around half the tribal children does not start at sixth month but gets delayed by several

months. The frequency of feeding and quantities fed in each feeding are also low. Giving children a diverse diet; especially inclusion of oil, pulses and green vegetables also needs to be covered.

As discussed earlier and the lesson on Gender, nutrition education should also attempt to break social barriers in feeding of girls and women. Nutrition education should promote feeding of girls during adolescent catch up period of 12-15 years. Tribal communities show a huge amount of social taboos in feeding of women during pregnancy, post-natal period and lactation. A study in Chhattisgarh found that bulk of the pulses, green vegetables, fruits available to families were prohibited for lactating women. Nutrition counseling through home visits and village level meetings should be directed towards addressing these taboos.

Micronutrient supplementation: Micronutrients like Iron, Vitamin A, Iodine are necessary for good health and development of children. Natural foods rich in these nutrients like green leafy vegetables, meat, carrots, papaya etc need to be promoted through nutrition education efforts. Advocating measures like cooking in iron utensils can also help. In addition, there are existing National programmes for supplementation of these micro-nutrients. Therefore use of Iron tablets, Vitamin A doses and Iodised salt need to be encouraged through ensuring availability and counseling. Consumption of Iodised salt in tribal areas is still much lower than required levels. Iodine deficiencies can cause poor mental development. Improving access and availability of Iodised salt at affordable rates is therefore critical. Example Chhattisgarh Government provides Iodised salt (2 kgs/per month for each family) free of cost to all BPL families and it has improved Iodine deficiencies. Anganwadi based feeding programmes also help in ensuring adequate Iodine consumption.

Tips for effective nutrition education

What has been the problem with past efforts in nutrition education?

While grassroots level communication efforts by Anganwadi workers, ASHAs and ANM are very much needed, it is important to avoid the pitfalls experienced in past efforts. As with many of the top-down Behavioural Change Communication (BCC) initiatives, nutrition education has many times been prescriptive even insulting in nature. There is a need to do it in a manner that makes it more acceptable to tribal communities.

One way of doing nutrition counseling in an effective and respectful way:

- A) Four Fold Analysis of situation: The health worker finds out the situation of the child and its family on four aspects:
- socio-economic status of the family : based on how the house looks, its size, family occupation etc
 - child feeding, based on previous day's recall of what the child ate from morning till night
 - history of child illness: based on recall of any episodes of fever, diarrhea, respiratory infection over last 2-3 months



iv) family's access to health care: based on asking the cure accessed and cost incurred for each bout of child illness, as well as inquiring about their access to ration shops and subsidized food allocations from it, to anganwadi services, to mid day meal services, to immunization etc.

B) Making suggestions: Based on above, the health worker is able to assess the gaps in feeding or seeking healthcare. She also learns what the family is already doing to cope and builds on it. The health worker praises the mother for her efforts and gives her specific suggestions in form of questions after explaining the rationale. E.g., the health worker finds that vegetables are missing in the child's diet. She explains the benefits of feeding vegetables. She asks the mother if she can try to include vegetables in child's diet.

Such situation based non-threatening advice has been found to be more effective.

In terms of strategy, it is important to strengthen nutrition education related training for two set of workers: ASHA and Anganwadi worker. Secondly, supportive supervision should focus on promoting 'home visits' as families are more open to food related advice in the confines of their homes.

C. Strengthening access of tribal people to Food Security Programmes:

The above strategy of 'Nutrition education' or BCC can be a significant input to improve nutrition. But for poorer communities, like most of the tribes are, access and availability of food becomes a critical factor. Thus District Health Plans in tribal areas need emphasis on convergence with food security programmes like Public Distribution system, Mid-day meals, ICDS, Social security pensions and NREGS. As per orders of the Supreme Court, tribal habitations must be given top priority in opening of new Anganwadi centres.

Greater food availability at household level in a poor community can make a big difference to its nutritional status. Inclusion of varied diets in meals provided through programmes like ICDS and MDM can also help in educating mothers on benefits of including oil, vegetables, pulses etc in child feeding.

One way of strengthening food security for tribal families can be preparation of village/panchayat level Health & Nutrition Plans. Such local planning has been attempted in Chhattisgarh state through VHSCs and has shown improvements in local delivery of food programmes in addition to healthcare services.

Apart from food itself, daycare for children can also help the cause of fighting malnutrition. It is important because majority of tribal women go out of house for work on most days. To ensure desired frequency of feeding, daycare can play a big role. Daycare near their worksites (as in NREGA worksites) can help in improving exclusive breastfeeding too. Provision of crèches through NREGA, Rajiv Gandhi Creche Scheme, and if possible through ICDS can be an important convergence strategy in a District Health Plan.

D. Strengthening local food production and consumption of diverse traditional foods:

In order to improve availability of various types of foods in tribal households, strategies are needed to aid the local production of these foods.

- Systemic Intensification of Rice (SRI) also known as the Madagascar method can be a very useful and low-risk technology for boosting cereal production in tribal farms. ASHA and VHSC's can aim to promote awareness on such technologies.
- Promotion of kitchen gardens through ASHA and Anganwadi workers can also be a feasible strategy.
- Promoting animal husbandry like Pig rearing or local varieties of poultry for household consumption for household consumption along with home based technologies for drying or preserving meat can make a big difference. This is also a solution where forest game had been a major source of meat- protein, fats and minerals.

Promoting consumption of traditional forest based foods is very important. Many tribal areas still have access to a variety of green leafy vegetables, forest floor mushrooms etc in their local areas. But these foods sometimes do not receive the status they deserve. It can be useful to promote such traditional foods. Eg, in Chhattisgarh, the BCC kit for ASHA and Anganwadi workers includes a book on 60 locally available green vegetables, 59 locally made snacks, 44 other forest based foods like various kinds of mushrooms available from forests etc. It helps the tribal communities in realizing the nutritive importance of inexpensive foods which may be easily available to them.

E. Convergence of government departments and active surveillance:

There are a number of schemes from various departments of the state which contributes directly or indirectly towards the improvement of health and nutrition among the tribal communities. For example, the Backward Region Grant Fund, Tribal Sub Plans, Special Assistance to KBK region of Orissa (Koraput, Kalahandi, Bolangir) and Special tribal scheme- Navsanjeevan in Maharashtra. It is pertinent to converge these various programmes and schemes into a comprehensive package to have an impact on the health and nutrition status of the tribal communities. Besides convergence, what is required is to build and promote a system of active surveillance for ascertaining the true situation of malnutrition and health status of the tribal areas.

The Marathwada initiative in the Aurangabad Division of Maharashtra has shown the positive impact of active surveillance and convergence of health and ICDS bring down the malnutrition rate and child deaths due to malnutrition.



F. Addressing Severe Acute Malnutrition through Nutrition Rehabilitation Centres: (refer also to Lesson Six of Book 3)

Severe Acute Malnutrition (SAM) refers to extreme levels of malnutrition which is highly life threatening in the short-run itself. A child having severe stunting (Weight to Height ratio < -3 standard Deviation) is defined as being suffering from SAM. In a field situation, it is not easy to find data on children's heights. Therefore an alternative definition has been proposed. Children with Mid-Under-Arm circumference below 115 mm are screened as suspected SAM cases. Using this method, SAM children can be easily identified by village level community health workers. Around 5% of the children in our country are in this category. In tribal areas its extent may be 7% or even higher.

SAM children need medical care along with nutritional support. They may be usually suffering from infections, low temperature (hypothermia) and low sugar levels (hypoglycemia). They have very poor appetite and it is difficult to feed them well. One way of organizing treatment for such children that has been recognized by NRHM is through opening of 'Nutrition Rehabilitation Centres' (NRC). These are usually started in existing PHCs or CHCs having adequate healthcare staff. Community Health Workers like Anganwadi Workers or ASHA are trained to identify and refer suspected SAM children to nearest NRCs. The referred child is admitted in the NRC. They receive the required medical treatment from the PHC doctor and are fed 6 to 8 times a day foods which have high fat and protein content along with other foods as per local tastes. The child remains admitted in the NRC for around 20 days. There is also provision for the mother to eat free of cost at the NRC and to get compensation for loss of wages. In better functioning NRCs, mothers also participate in cooking and feeding activity so that their knowledge on child feeding improves. Currently however, the number of functioning NRCs is extremely limited. A vast majority of SAM children are thus without the required care. Therefore DHAPs should aim to start more NRCs and to give tribal areas greater priority.

Maharashtra's Malnutrition Mission has successfully introduced an innovation called 'Village Child Development Centres (VCDC)' in Nandurbar district to ensure greater coverage of SAM children. VCDC is an extension of the NRC concept to the village level. While NRCs are set up in PHCs, VCDCs are set up in Anganwadis. The Anganwadi worker identifies the SAM children. These children make one visit to the PHC (Out-patient) so that the PHC doctor can do their check-up and start treatment for any infections. Special Child Treatment Camps (CTC) are also organized at cluster level so that a large proportion of SAM children can access medical treatment. Rest of the nutrition rehabilitation happens at the Anganwadi based VCDC through spot feeding of SAM children. For upgrading the Anganwadi to a VCDC, it opens for two hours in the evening in addition to the regular morning opening hours. The children are fed energy dense local foods by lapsi, milk, eggs, potato, banana. Anganwadi Workers also receive a cash incentive for the additional hours of work and taking care of the SAM children. This model has several advantages over the NRC model. The coverage rates are much higher as it is much easier for the mothers to bring their children to Anganwadi twice a day than staying in the NRC for 20 days. This is also more cost effective compared to the NRCs. Maharashtra government has decided to expand this model to cover

districts with high child malnutrition rates. Based on the results of this intervention in 200 villages, Maharashtra Government is planning to upscale this intervention. If this programme is able to maintain its effectiveness in the scale up, it can offer Anganwadi centre based nutrition rehabilitation as an effective and replicable model which can help in ensuring good coverage of SAM affected children.

The Marathwada Initiative

The impetus for launching a concerted campaign for tackling the scourge of malnutrition in children in the 0-6 age group had its genesis in the fourteen child deaths, apparently due to malnutrition, reported from the one village of Bhadali, taluka Vaijapur, district Aurangabad during the period 2000-2001. What was unacceptable was that this took place barely seventy kilometres from a major urban centre like Aurangabad and that this occurred after more than a quarter century of implementing the Integrated Child Development Scheme (ICDS) in Maharashtra.

2. The Malnutrition Removal Campaign launched in Aurangabad Division on 14 March 2002 focused on the following important parameters:

- (a) Complete (100%) survey of all children in the 0-6 age group.
- (b) 100% registration of all such children.
- (c) 100% weighing of all such children.
- (d) On the basis of weighing, classification of all children into normal/grade 1 to 4 categories (as appropriate).
- (e) Special concentration on children in Grade 3 & 4 stages of malnutrition; regular weighing, providing for health & nutrition measures for these children through Nutrition Rehabilitation Centers (NRC) and Village Child Development Centers (VCDC). (Detailed in point F)
- (f) Initiating measures for ensuring health and nutrition of pregnant mothers to reduce incidence of low birth weight children.
- (g) Greater attention to children in the 0-3 age group given the greater incidence of malnutrition in this age group and its implications for the future development of the child.
- (h) Analysis of data to bring out the relative incidence of malnutrition based on age, gender & social status (scheduled caste/tribe) etc.

The first & most important step was to enhance the coverage of children in the 0-6 age group in the ICDS scheme, especially in respect of the population living outside the coverage of the anganwadi area. Statistics showed that barely 60% of the child population in the 0-6 age group was recorded in



the anganwadi registers. Thereafter arose the issue of timely weighing of children, especially children who were suffering from Grade 3 & 4 levels of malnutrition. A major problem here was the availability of weighing scales. The problem was solved by the provision of 7000 weighing scales to Aurangabad Division through the intervention of UNICEF. Children in grade 3 & 4 stages of malnutrition were to be weighed once a month while other children were to be weighed once every 6 months. The grade 3 & grade 4 children then formed the core target group for both the ICDS & health machinery. Special attention was given to devising schemes aimed at improving their nutrition and health status with the objective of lifting them out of the severe malnutrition stages through NRCs and VDCs. These included provision of supplementary nutrition, counselling of the mothers as well as regular medical check-up of the children, particularly those suffering from grade 3 and 4 malnutrition, who were to be weighed and medically examined every month.

The results of the initiative belied the expectations. The initial number of children in the 0-6 age group in the grade 3 & 4 stages of malnutrition in Aurangabad Division in July 2002 was 7867, as per the ICDS records. With improved survey & weighing efficiency, the number of children in grade 3 & 4 stages of malnutrition went up to 10705 in July 2002.

The subsequent concentration on Grade 3 & 4 children has seen the number come down to just over 3000 in March 2004. As of April 2005, this figure has come down to below 500.

The reduction in the incidence of severe malnutrition (Grade 3 & Grade 4 stages) has been possible because of three factors:

(i) **Training** of staff at all levels happened on a regular basis over three years. The training programmes focused on all levels right from Collectors & Chief Executive Officers (CEOs) to Dy. CEOs (ICDS), District Health Officers (DHO), Medical Officers and Child Development Project Officers (CDPOs) right upto Anganwadi Supervisors and Anganwadi Workers (AWW). Workshops were also held for elected officials of Zilla Parishads & Panchayat Samitis to enlist their active cooperation & support for the campaign.

(ii) **Motivation** of staff at all levels was one of the prime objectives of the training programmes, apart from imparting skills in implementing & monitoring the programmes. It was apparent that the ICDS staff had to be convinced and enthused regarding the critical importance of the tasks they were carrying out. The involvement right from the top in terms of regular workshops, visits to anganwadis and the development of an interactive atmosphere for resolving day to day issues infused new life into the machinery and gave them the opportunity to take a proactive approach in solving the problems confronting them. The Star Campaign to appreciate and recognize those anganwadis, blocks and districts that were able to show no cases of severe malnutrition introduced a spirit of healthy competition and enthusiasm in the field workers.

(iii) **Monitoring** of results was crucial to the success of the campaign. Detailed block level reviews (going down even to the supervisory level) at the Divisional Commissioner level and regular follow up visits and reviews at the blocks level by officers from the Divisional Commissioner's office stressed the importance of the campaign and kept it at the forefront of the district and block level machinery priorities.

What is of particular significance is that the entire initiative required no additional budgetary support from government nor was any additional staff asked for. The existing ICDS machinery was motivated to perform to its fullest potential and devise local workable solutions to resolve problems arising at the local level. Regular medical check-ups of children in the 0-6 age group also showed a distinct improvement after the commencement of the campaign. Most importantly, the enthusiasm of the field-level workers translated into a significant community involvement in the campaign with far-reaching implications for the success and sustainability of the campaign.

The state of Maharashtra has also gone ahead with formation of a Nutrition Mission named "Raj Mata Jijau Mother- Child Health and Nutrition Mission".

"Raj Mata Jijau Mother- Child Health and Nutrition Mission":

Malnutrition reduction and removal requires to be placed at the centre stage of any State's priorities. The State of Maharashtra has, therefore, treated the removal of malnutrition as a **MISSION**, which is to achieve quantifiable goals in a specific time frame. The 'Rajmata Jijau Mother-Child Health & Nutrition Mission (Mission) functions under the overall guidance and under the Chairmanship & Supervision of the Chief Minister, indicating the highest political sanction for this important initiative. A Mission Steering Committee under the Chairmanship of the Chief Minister with Ministers of the concerned departments like Women & Child Development, Health, Tribal Development, Rural Development, etc. would review the progress on a regular basis. A second Committee, the Mission Monitoring & Implementation Committee, under the Chairmanship of the Minister for Women & Child Development, with Ministers of all concerned departments as members, would directly oversee the implementation of the Mission objectives. The Mission Advisory Committee under the Chairmanship of the Chief Secretary with all concerned departmental Secretaries represented on the Committee would take stock of the achievement of project milestones and resolve bureaucratic bottlenecks in the effective implementation of the Mission objectives. The constitution of these three Committees is intended to send out a clear message that the goal of malnutrition removal and child mortality reduction is receiving attention at the highest levels of government and that the highest level of involvement is expected from the entire government apparatus. A **State Mission Unit** has, therefore, been established to coordinate the efforts of the various departments and provide feedback on the measures required for effective implementation of the Mission objectives of the State is working towards reduction in child undernutrition mostly in the backward and tribal region of the state.

(Source : Combating Child Malnutrition in Maharashtra - The Marathwada initiative and road ahead)



F. Delivering nutrition to mothers and infants through special feeding programmes

It has been seen in many small-scale NGO programmes that delivering nutrition directly to pregnant women, lactating mothers and young children through feeding programmes helps in improving their nutrition status. Some government experiments have also now shown that it can be an effective strategy. The feature of these programmes has been the high quality food that is provided for extended periods. Apart from changes in nutrition status, this has also proven to be very useful in changing nutrition related behaviours and even gender equations. One example of such a state run programme is of 'Velugu' programme in Andhra Pradesh.

Case Study : Velugu Project of Andhra Pradesh:

The Society for Elimination of Rural Poverty (SERP) is an independent, autonomous society registered under the Societies Act to implement the World Bank supported project with the Chief Minister as the Chairperson. The Andhra Pradesh District Poverty Initiatives Project -APDPIP is a 5 year project (2000-2005) being implemented by SERP. Objective of APRPRP is to enable the rural poor, particularly the poorest of the poor in AP to improve their livelihoods and quality of life. This is to be done through strengthening the existing self help groups and building the poor people institutions like village organization and mandal samakhya.

The Velugu project takes a comprehensive approach to addressing health, nutrition and livelihood issues. It develops what it calls a Nutrition and Day Care Center as an enterprise model for delivery of nutrition services. This center provides two full nutritious meals daily for all pregnant mothers and nursing women for a period of 18 months. The cost of these meals is Rs 30 per day. In addition a milk and eggs breakfast is provided free. Children below 5 can have the same meals for a payment of Rs 10 per day. These payments are treated as interest free loans which can be paid back over a three to five year period. Thus daily cash payment would be in the range of 5 to ten rupees only.

For poor women to be able to afford this and to withdraw pregnant women from the more strenuous agricultural and construction labour work, alternative sedentary occupation like leaf plate making, or tailoring is provided and from the income generation the payment for nutrition services is deducted. The income generation is designed to provide Rs 800 to Rs 1000 per month per woman. This center is linked to kitchen gardens that provides both income and diversity in diet. It is linked to the delivery of the entire range of RCH services and now home based neonatal and sick child care is being introduced into it.

This centre is staffed by a trained cook and coordinated by a health activist/ASHA and they are trained for the purpose. There is a village based organisation, a mandal level organisation and a district level organisation which provides community participation and leadership. The centre also acts as a nodal point for access to 108 and 104 services, to the Arogyasree Insurance programme and to

another sanjeevini insurance programme that covers secondary care as well and to a health risk fund that extends loans to meet the invisible costs of health care. To manage the programme, 115 community coordinators are selected through a careful process, trained and positioned in the 41 Velugu Project Mandals. Of these 19 mandals are under the tribal project management unit and 22 under the district programme management unit.

The impact on low birth weights has been dramatic with a 100% reduction in beneficiaries and an average birth weight crossing the 3 kg mark. The impact on child malnutrition is also significant, not so much by reversal of established malnutrition, as by prevention of malnourishment in cohorts of children born after the programme is established in the village. The programme aims to make 10,000 villages malnourished free by 2012. Currently the programme reaches 1500 villages, and for total coverage it would have to reach 30,000 villages. Thus the main challenge before the Velugu programme is the management of the scaling up.



Review Questions:

1. Make a list of diseases to which a person is more susceptible to if she/he is malnourished.
2. What is the proportion of malnourished children in tribal population?
3. What are the major reasons for high levels of malnutrition amongst tribal people?
4. List some ways in which social awareness on problem of malnutrition can be increased.
5. What is severe acute malnutrition? What are some of the strategies to treat it?
6. What innovations were tried by Maharashtra's Malnutrition Mission to fight malnutrition in tribal areas?

Application Question:

1. What is the change in nutrition status of tribal children (0-3years) and adult women and men from NFHS-2 to NFHS-3?
2. What is the role of Anganwadis in fighting malnutrition?

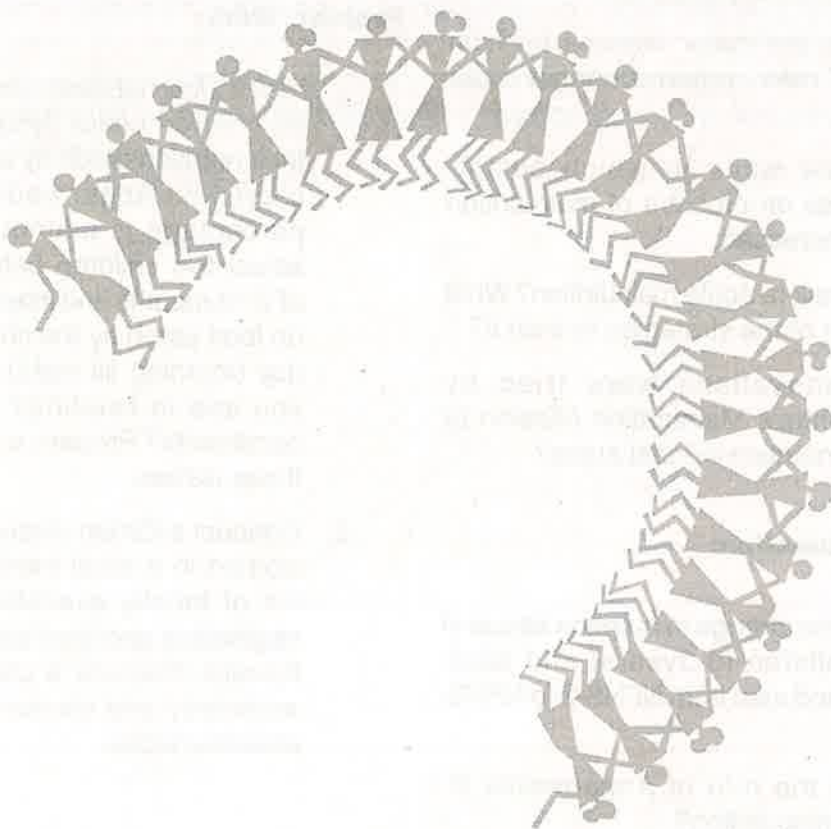
3. Decide appropriate indicators for the following-

- a) Nutrition status
- b) Child feeding behaviour
- c) Food security

Project Work:

1. Visit a tribal habitation and weigh at least 20 children under 3years of age. Plot their nutrition grade by using the growth chart with Anganwadi worker. What percentage is malnourished? Then select five children between the ages of 7-18 months and interview the mother on food eaten by the child the previous day (morning till night). What gaps do you see in feeding? What are the constraints? Prepare a plan to address these issues.
2. Conduct a Group discussion with tribal women in a tribal hamlet and make a list of locally available green leafy vegetables and food available from the forests. Prepare a plan to promote availability and consumption of locally available foods.

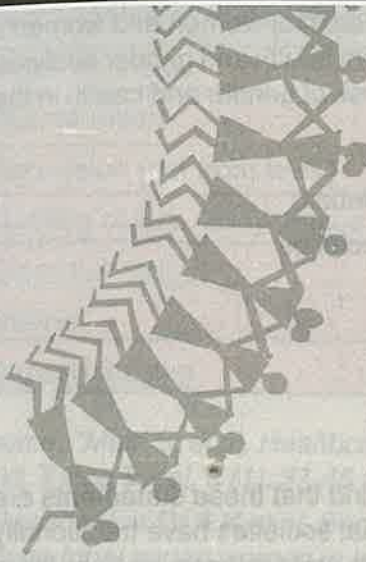
NOTES





Lesson THREE

Gender Issues In Tribal Context



In this lesson we shall discuss:

- The common perceptions regarding gender in tribal societies
 - The status of women in tribal societies and the implications on health
 - The gender related factors affecting health of tribal women
 - Strategies for gender in health programmes in tribal area
- 

INTRODUCTION

In PHRN Book 6, we have read about Patriarchy, Gender, its effect on the health of women and women's health issues beyond maternal or reproductive health. We discussed adolescent health and gender analysis, planning and mainstreaming in health programming. In this chapter we will look at gender and health in the tribal context.

Listed below are some common perceptions regarding gender in tribal societies:

1. There is high degree of equality amongst men and women in tribal societies
2. The sex ratio in tribal societies is very good
3. There is almost no violence against women in tribal communities
4. There is no dowry in these communities, instead there is bride price
5. Tribal panchayats are able to resolve family disputes very effectively

But when we actually try to study these aspects in tribal communities, we find that these statements are not completely true and sometimes completely false. Though women in tribal societies have traditionally enjoyed higher status than in non-tribals, issues of discrimination, neglect and violence against them exist today. There are female specific studies showing that the situation of women that was supposed to be better off in tribal people is worsening due to change in situation of tribal societies themselves, for example, as reflected in the declining sex ratio. In previous lessons we have already discussed the poor status of health and nutrition among tribal women. Though some tribal laws and customs are favorable to gender equity there are more which are not. In women's literacy status which has a strong relation with health we see that though there is an increasing trend tribal women's literacy level, they are lagging behind tribal men and non-tribal women.

LET US NOW EXAMINE THESE ISSUES IN DETAIL IN THE CONTEXT OF THEIR IMPLICATIONS ON HEALTH

1. Health status and access to healthcare

We have already discussed maternal health in the chapter on access to health care and have seen that in all the indicators, the status of tribal women is the lowest. This is reflected in their high maternal mortality ratios. An illustration of this is the high MMR of 722 per 100 000 live births found in a study among tribal women in three bordering districts of Jharkhand and Orissa (Barnett S. et al).

The studies shown below in the table shows the high percentage of tribal women who face health problems during pregnancy. This is aggravated when the pregnancy occurs during adolescence.



Percentage of tribal women and adolescents with health problems during pregnancy

Health problems during pregnancy	Tribal women*	Tribal adolescent mothers**
Night blindness	20.4	54.7
Blurred vision	33.6	
Convulsion (not from fever)	38.4	50.9
Swelling of legs, body or face	49	29
Excessive fatigue	49.3	45
Anemia	28.9	65.8
Vaginal bleeding	2.1	

Source : *Maiti S. et al, *Healthcare and health among tribal women in Jharkhand: A situational analysis*, *Stud. Tribes Tribal*, 3 (1): 37-46 (2005)

**Ravishankar Dr A K et al, *Early pregnancy and its association with pregnancy related health problems among tribal young women in India*, Annamalai University, Tamil Nadu, India

The study in Jharkhand also shows that around 43% of tribal women complain of any reproductive health problem.

Additionally, there is high disease burden of non- communicable diseases among tribal women. We can see that in the following table:

Number of persons per 100,000

	Diabetes	Asthma	Goitre/Thyroid
Tribal Women	349	1749	753
Tribal Men	477	1973	567
Total Women	881	1696	949

Source : National Family Health Survey 3 (NFHS 3)

Large numbers of tribal women get affected by communicable diseases like malaria, tuberculosis and gastroenteritis. Malaria during pregnancy is a cause for grave concern. Details of burden of malaria among tribal women can be found in the chapter on malaria.

Though the disease burden is high among tribal women, there are severe limitations to their access to

health services. Beyond maternal and reproductive health, the health system is not able to address the other concerns of women including communicable or non communicable diseases. Even provision of maternal and reproductive health services in tribal areas is limited as we have noted in the chapter on 'Special issues in access to healthcare'. Poverty and gender discrimination prevent women from accessing the public health system.

2. Declining sex ratio

Sex ratio calculates the number of Females in the population per 1000 Males. It is a very pertinent indicator which illustrates the status of women in a population. The sex ratio amongst most tribals has always been better than non -tribals.

However, data of the last decades shows that like the rest of the population, tribal populations are also exhibiting a trend of declining sex ratio.

Child sex ratio (0-6 yrs)

	1991	2001
Total Population	940	919
Scheduled Tribe (ST)	985	972
Jharkhand ST	993	979
Orissa ST	998	979
Madhya Pradesh ST	987	979
Gujrat ST	988	966
Nagaland ST	1003	969
Chhattisgarh ST	996	998

The child sex ratio among Scheduled tribes (972) is much higher than in total population (919). But we find a small and disturbing decline in the child sex ratio of tribal population in India. From 985 in 1991, it has come down to 972 in 2001. This trend of declining child sex ratio can be seen in all the States except for Chhattisgarh.

Child sex ratio if low is an accurate indicator of male preference and discrimination against girl child in the community. Practices like sex determination and female feticide amongst tribal population are probably increasing due to creeping in of values like male preference due to acculturation and increased exposure to the mainstream and access to technologies that enable session.



Again when we compare the overall tribal sex ratio (978) to the total population (933), we find that it is more favorable to tribal women. But in this case too, the overall sex ratio among tribals has decreased from 987 in 1961 to 972 in 1991. The sex ratio in 2001 shows a slight increase (978).

All ages sex ratio of Scheduled Tribes

Year	ST Sex ratio
1961	987
1971	982
1981	983
1991	972
2001	978

Source : (Basu, S.K.: Health Status of Tribal Women in India. Social Change, Dec. 1993, 23(4), pg.19-39)
Given below are the child sex ratio and overall sex ratio of certain tribes.

Sex Ratios of certain tribal groups in descending order according to child sex ratio

	State	Tribe	Child Sex Ratio (0-6 years)	All ages Sex ratio
1	Manipur	Simte	1039	1000
2	Chhattisgarh	Gond	1002	1018
3	Andhra Pradesh	Koya	1000	1006
4	Andhra Pradesh	Gond	999	1013
5	Orissa	Bhottada	998	993
6	Chhattisgarh	Kamar	997	1008
7	Jharkhand	Kharwar	991	944
8	Orissa	Kondh	990	1027
9	Chhattisgarh	Halba	989	1035
10	Jharkhand	Ho	986	1010
11	Madhya Pradesh	Gond	986	989
12	Jharkhand	Bhunji	984	983
13	Jharkhand	Munda	983	994

Source : Census of India 2001

14	Madhya Pradesh	Baiga	983	984
15	Maharashtra	Warli	983	1008
16	Jharkhand	Lohia	982	970
17	Orissa	Sabar	982	1008
18	Jharkhand	Santhal	980	985
19	Orissa	Gond	980	1005
20	Meghalaya	Synteg	980	1024
21	Meghalaya	Khasi	979	1071
22	Chhattisgarh	Oraon	978	1002
23	Jharkhand	Kharia	977	1026
24	Madhya Pradesh	Bhil	977	975
25	Orissa	Munda	974	982
26	Orissa	Kolha	973	990
27	Maharashtra	Bhil	972	984
28	Maharashtra	Kokna	972	984
29	Maharashtra	Thakur	972	959
30	Orissa	Saora	971	1007
31	Andhra Pradesh	Yerukulas	971	984
32	Madhya Pradesh	Kol	969	948
33	Madhya Pradesh	Sahariya	969	938
34	Maharashtra	Gond	969	964
35	Madhya Pradesh	Korku	967	959
36	Jharkhand	Oraon	966	992
37	Orissa	Santhal	955	976
38	Andhra Pradesh	Yenadia	950	957
39	Maharashtra	Koli	947	964
40	Andhra Pradesh	Sargali	944	939
41	Mizoram	Chakma	944	929
42	Manipur	Tangkhul	941	965
43	Manipur	Kacha Naga	936	961



Looking at the table we can come to the following conclusions:

Though in totality, the tribal sex-ratio is more favorable towards tribal women than other communities, we find a lot of variation amongst the tribes themselves. E.g. in the above list, Simte tribe in Manipur have the highest child sex ratio of 1039, whereas Kacha Nagas in the same state have very low child sex ratio of 936. Similarly, in Jharkhand, while Kharia tribe has a positive sex ratio of 1026, Kharwar tribe has a poor sex ratio of 944.

What is the tribal sex ratio in your block/district? How does it differ from general populations? What was it in the last 3 census? Has it declined? What do you think are the reasons for this decline?

3. Gender differences in Malnutrition

Tribal women are more malnourished than tribal men and their non-tribal counterparts. NFHS 3 illustrates this -

NFHS 3	Tribal		Total population	
	Women	Men	Women	Men
BMI<18.5	46.6	41.3	35.6	33.7
Anemia	68.5	39.6	55.3	24.7

In the above table we can see that tribal women are worse off than the tribal men and have significantly lower nutritional status than women in the total population.

Heavy workload along with low food intake due to non-availability of food along with discriminatory practices against women is the cause of high malnutrition among tribal women.

No catch up during Adolescence- More than half of tribal children are malnourished and anemic. This state of under-nutrition continues into adolescence as there is hardly any catch up growth for tribal girls. A study in tribal areas of Madhya Pradesh found high prevalence of under-nutrition amongst the adolescents in terms of underweight (61.7%), stunting (51.7%) and wasting (32.8%) and anemia (82.3%).

Another study from West Bengal in Indian Paediatrics 2008:45:43-46 by Sutanu Dutta Chowdhury and Tusar Kanti Ghosh has shown that Prevalence of Undernutrition (stunting and wasting) among Santhal girl children is more than the boys.

As a tribal girl enters puberty her workload increases. But along with that she does not get adequate food which required at the time. Hence her nutritional status does not improve.

Lack of care during pregnancy: Tribal women are expected to perform both household and economic tasks till advanced stages of pregnancy. This heavy workload is combined with low food intake as a result of either non availability of food or restrictions put on the pregnant lady. In some communities there is also a belief that if the pregnant woman eats too much, the baby will grow too big and result in difficult labour.

Food restrictions on lactating mother: In a number of tribal communities, restrictions are made on the type of food a woman is allowed to have after her delivery. The most inhuman norm is not allowing the woman to eat food or drink water for nearly two to three days after delivery. Many a maternal mortality has occurred due to this. After that too a number of food items are restricted. For example in Chhattisgarh, lactating women are not allowed to eat most of the locally available foods like many green leafy vegetables, fruits, even pulses. Thus a lactating woman needing high calorie diet is made to live on mainly rice and salt.

Household distribution of food: As in most other communities, women in most tribal households are the last to eat. In a family where there is less availability of food, it is the woman who many a times gives up part of her share for her children or husband. This again means that she does not get adequate food and thereby stays malnourished.

4. Heavy Workload of tribal women

Tribal women participate in a major way in their family's economic activity. They work in agriculture as well as in Non Timber Forest Produce (NTFP) collection and as wage labour. Infact they are the major contributors to most of the agricultural and forest related activities. In agriculture, they are involved in transplantation, weeding, harvesting, winnowing and dehusking. Only ploughing is left to the men. All types of NTFP collection like mahua, tendu leaves, sal seeds collection is carried out by women. The women participate equally in government or private wage labour work.

In addition to this they have to do all the housework including carrying drinking water, firewood collection and taking care of the livestock. A study on Kondhs in Orissa calculated that women put in an average of 14 working hours per day as compared to 9 hours put in by men (Basu, 1993).

Festivities are a way of life among tribal communities but these are also associated with increased work load for women as they have the responsibility to cook and feed the many guests who visit them on such occasions.



The following chart was arrived at in discussion with ASHAs in one state:

Time	Tribal Woman	Tribal Man
5am 5am to 7am	Wakes up Cleans the house and utensils Collects drinking water	
7am to 9am	Cooks food Bathes Bathes her children	Wakes up
9am to 10am	Feeds children and husband Eats herself Eats food	Bathes
10am to 5pm	Goes for harvesting	Takes the livestock for grazing Takes a nap
5pm to 7pm	Comes back home and cooks and cleans Collects drinking water	Visits friends
7pm to 8pm	Feeds children and husband Eats herself	Eats
8pm to 9pm	Puts children to sleep	Goes to sleep
9pm	Goes to sleep	

This double burden of earning for their family and taking care of the household results in very heavy workload and has severe implications for their health. And though they are the main 'workers' in the family, the women have little control over the resources, be it property or wage earnings. NFHS 3 data shows that the percentage of tribal women who have the right to decide how to use their own earnings is lowest among all social groups.

Customary laws among certain tribal groups also deny women the right to property. Reduced access to natural resources has also affected the tribal women's livelihood and workload. Forests have always provided the tribal communities with their basic necessities. Along with food and livelihood, the forest fulfils people's nistar needs (like those of fuelwood, grazing, housing, and sanitation) and the major burden of this falls on the woman. There has been decreasing forest cover due to development activities and this means increasing work burden for the women. It means traveling longer distances and spending more time in fulfilling the above functions. Large scale deforestation due to setting up of industries and commercial forestry has also led to a loss of livelihoods for the women. Deforestation has also lead to large scale

migration which has made the women insecure and vulnerable to all kinds of violence.

5. Violence against women in tribal communities

a) Domestic violence - Domestic violence is very much prevalent in tribal households. Let us look at the available data on this-

Indicator	ST (%)	Total (%)	
% who ever experienced violence since 15yrs of age	39.3	33.5	Second highest % among social groups
% who ever experienced violence in last 12 months often or sometimes	24.5	18.9	Highest % among social the groups
Women aged 15-49yrs who have ever experienced sexual violence	10.2	8.5	Second highest % among social groups
Degree of marital control exercised by husband (3 or more specific behaviours exhibited, measured)	16	12.2	Highest % among social groups
Spousal violence-Emotional, physical and sexual violence	47	39.7	Second highest % among social groups

Source :NFHS 3

A study among tribal women in Ladakh, Sikkim, Rajasthan and Himachal Pradesh also showed that there were few tribal women who were not subject to violence at the hands of their families.

The above data shows that contrary to popular belief, tribal women face high degree of violence at home. Also, the reason for this is not only alcohol. As it is stated in NFHS 3, 'The high prevalence of spousal violence even among women whose husbands do not consume alcohol indicates that alcohol consumption is not the only explanation for the high prevalence of spousal violence in India'.

Often the health system's response to the violence faced by tribal women is not adequate and at times may be abusive and insensitive.

Case study

Basanti of Khunti block in Jharkhand had been a victim of violence for the 5 years of her marriage. After one night of extensive beating by her husband she decided to go to the police. She went with her



neighbour to Khunti police station. The Police told her to get the medical certificate and then only they can file a case. She went to the CHC and met the doctor there. The doctor told her that she must have done something wrong for her husband beat her. He said that if she wanted a medical report (MLC), she had to pay him Rs 500. Basanti did not even have money to travel back to the village so she and her neighbour begged the doctor to consider her case. But he was adamant. So they went to a shopkeeper the neighbour knew and borrowed Rs 300 from him at 150% interest. The Doctor grudgingly took the money, warning them that the medical report will be only as good as the amount he has been given. And only after the neighbour requested did he give Basanti some ointment and medicines for her wounds.

What should the role of Doctor/health personnel be when a victim of domestic violence comes to her/him?

b) Witch hunting- Witch hunting is a practice found amongst Tribal and Dalit communities. It is not exclusive to these communities. A woman declared a witch may be publicly humiliated by branding, tonsuring, parading naked, making her eat excreta etc. It can also lead to more direct forms of violence like rape, burning and beating leading to death of the woman.

How many women are being murdered as witches? Some facts:

- Andhra Pradesh- In the last 2 years there have been 147 such murders.
- Orissa- In Sundargarh district, since 2001, there have been 50 deaths, and in Mayurbhanj district, since 2003, there have been 15 deaths.
- Jharkhand- Police records show 984 women have been killed as witches in 19 districts, from 1991 to 2008. Among them 242 women were killed in Ranchi district, 178 in West Singhbhum, 60 in East Singhbhum, 34 in Saraikela-Kharsawan, 127 in Lohardaga, 100 in Gumla, 39 in Simdega, 60 in Palamu, 18 in Garhwa, 10 in Chatra, 15 in Hazaribagh, 16 in Koderma, 15 in Giridih, 6 in Dhanbad, 12 in Bokaro, 16 in Deoghar, 11 in Dumka, 14 in Sahebganj and 11 women were killed in Godda district.

Let us now look at some actual cases of witch hunting

Case 1- Subhadra Basumatray, aged 40, a Bodo woman in Tilapara village of Goalpara district in Assam and the mother of three sons and three daughters, had denounced rituals conducted by the kavirajs or ojhas or witch-doctors, in her village. She had thrice been branded a witch corresponding to three instances of a disease affecting people in the village. The fourth time, members of her family ganged up against her, for she demanded a share in the property of her late father. They got the local ojha, a woman, to declare Basumatray a witch, saying that she was responsible for the spate of illnesses in the village. On August 25, at 10 p.m., Basumatray was dragged out of her house by a group of people and beaten until 2 a.m. She suffered a fractured right arm, broken ribs and badly bruised legs.

Case 2- In Tarra village in Raipur district, a woman was hacked to death after being branded a witch by her brother-in-law after she sought a right over her deceased husband's land.

Case 3- In Gaandi village in Angara Block in Ranchi, two Dalit widows were tortured, resulting in the death of one of them, who was 75 years old. It began with the death of two children due to malaria and jaundice in September. An exorcist told the father of the children, Mahavir Baitha, that the two widows, Jeetan Devi and Dubhan Devi, were responsible for the deaths. In front of the son, the mother was tonsured, beaten, paraded and burnt. Earthen pitchers were broken on the heads of the two widows.

Case 4- In a colony in Rourkela in Orissa's Sundargarh district, three women, all above the age of 60 were branded as witches. They were beaten up. One of them was raped and she died. The reason being that their neighbour's nine year old daughter had died. She had high temperature and stomach pain and the local quack, unable to provide any relief, blamed the three women. The girl's father took her to the hospital but it was too late and she died. The father came back and gathered people to attack the three women.

Case 5- In Arhara village of Kamdara block near Ranchi, Bagda Munda's daughter Saniya Munda had been suffering from illness for last three years and finally she died on January 2, 2009. When Bagda Munda asked the Ojha about the reason for her death, the Ojha told him that his neighbour Sukhmani Munda has killed his daughter with her black magic. Bagda Munda then alleged 45 year old Sukhmani Barla of being a witch and killed her with his axe.

As is illustrated in the above cases, witch hunting is related to property disputes and to the lack of proper healthcare system and health education in these tribal areas. In most cases, both these causes overlap. During outbreak of diseases like malaria and diarrhea, the absence of adequate and accessible health systems forces people to go to traditional healers (ojhas, mahans, baigas, gunias, shamans etc). In the absence of proper treatment, it is convenient for the faith healers to put the blame for any deaths or prolonged illness on someone else. The women selected are usually vulnerable single women, widows, and close to the family where the illness or death has occurred. Most often than not, there is some property dispute involved and the witch hunt becomes very advantageous for the people instigating it.

6. Low Literacy status of Tribal women

Literacy rate is another important indicator showing status of women in a community. Tribal women have a lower literacy status than men. While their literacy rate has increased, it still remains quite dismal.

	ST Female	ST Male	All groups Female	All groups Male
1961	3.16	13.83	15.35	40.40
1971	4.85	17.63	21.97	45.96



1981	8.04	24.52	29.76	56.38
1991	18.19	40.65	39.29	64.13
2001	34.76	59.17	53.67	75.26

As we see in the table above, the literacy rate of ST Female has increased from 3.16% in 1961 to 34.76% in 2001. But it is still much lower than literacy rate of ST Males (59.17 in 2001).

Let us also look at differences in tribal male and female literacy rates in some of the States-

	ST Female (in %)	ST Male (in %)
Jharkhand	27.2	54
Chhattisgarh	39.3	65
Madhya Pradesh	28.4	53.5
Orissa	23.4	51.5
Gujrat	36	59.2
Arunachal Pradesh	40.6	58.5
Nagaland	61.3	70.3

Source: Census of India 2001

The Gross Enrollment ratio in class 1 to 8 is 70.8% for ST Boys and 44.8% for ST Girls.

Sex wise Gross Enrolment Ratio of ST and Total Population Class 1-8		
	1990-91 (%)	2000-01 (%)
Total Population	62.1	58.8
Boys	76.6	67.2
Girls	47.8	49.7
ST Population	39.7	58
Boys	51.3	70.8
Girls	27.5	44.8

(Source: Singh, Amar Kumar & C., Rajyalakshmi: Status of Tribal Women in India. Social Change. Dec. 1993. 23(4). p.3-18)

All the above data in % shows that there is no equality between tribal girls and boys when it comes to education. In fact, this gap widens as the girls reach middle school level.

7. Mobility of tribal women and their role in decision making

Generally tribal women enjoy greater freedom of mobility than their non-tribal counterparts. But as we see in the table below, NFHS 3 data shows that the indicators for mobility is not significantly different than other castes and non-tribals. In fact they are worse off than all other groups.

Women allowed to go alone to: (in %)				
	Market	Health facility	Places outside village/family	All three places
ST	49.1	42.6	34.8	30.3
Total population	51	47.7	37.7	33.4

Source: NFHS 3

Mobility among tribal women is more related to their heavy workload rather than a sense of freedom to move around. They require traveling distances both for household work like collecting firewood and water and for economic activity like NTFP collection and wage labour.

We see similar trends in decision making. NFHS 3 data shows that lesser number of tribal women are allowed to make decisions regarding spending their earnings on their own (17.1%) than women of all categories put together (24.4%). It also shows that there is more of joint decision making (59%) between husband and wife.

A study titled 'Gender Impact of Tribal Customary Laws in North Eastern India' which was conducted among five tribes showed that as the tribal economy becomes more monetized and market oriented, it is the men who take decisions which were previously taken by women or jointly.¹

8. Customary law and gender

Tribal communities have customary laws which govern their societies. Though this is a way of asserting their identity and autonomy, they are not necessarily pro women. An example of this is are the traditional tribal panchayats or village councils which consist mainly of men. Women do not have much role in decision making in these bodies. As a result, many of the decisions are seen to be not gender sensitive. In fact, a woman who may have been thrown out of her husband's house and wants to approach the tribal panchayat for justice has to first arrange for fee to be given to the elders making up the panchayat. This

¹Fernandes W. et al, Gender Impact of Tribal Customary Laws in North Eastern India



fee is usually in the form of livestock. But if the woman is unable to pay it, her case is not taken up in the tribal panchayat.

As mentioned before, customary laws of a number of tribal communities do not give rights to immovable property to women.

The study mentioned above showed that customary laws have tended to become more rigidly patriarchal as a result of its interface with modernity.

9. Dowry and Bride price

A distinctive feature of tribal communities has been the practice of bride price during marriage. Bride price is the amount paid by a boy's family to the girl's family in order to marry her. It was traditionally viewed as compensation paid to the girl's family for the loss of an economic asset. Today it is seen as a 'price' paid by the husband to the girl's father with her becoming a commodity (Fernandes W. et al).

In addition to this, in recent times, dowry has entered into tribal societies, which is more oppressive towards women. As a result, unreasonable dowry demands are being made and brides harassed for not fulfilling them.

Mukhyamantri Kanya Daan Yojana is a Government scheme in which couples tribal and other poor families are given money and household items for marriage. This scheme which claims to 'assist' newly wed couples has been criticized as promoting dowry in communities which did not have dowry. There have been reports of underage girls and boys being married off to take advantage of this scheme. In Madhya Pradesh, there have been reports of 'virginity' tests on tribal girls before marriage under this scheme.

10. Human trafficking

In recent years more and more tribal girls have been subjected to trafficking. Life of poverty and the promise of a better life are the reasons for which these girls leave their homes. A large number of women and girls migrate to cities to work as domestic help. But complaints of various kinds of exploitation and abuse are common.

11. Low age of marriage

Average age of marriage for girls is low amongst tribes too. According to NFHS 3, the median age at first marriage among tribal women aged 20 to 49, is 16.5 years which is lower than that of the total population (17.2 years).

FRAMEWORKS FOR STRATEGIZING GENDER IN A PLAN

One way of approaching strategies for tribal women's health in the PIP is by using the framework of practical needs and strategic needs (refer to Book 6 lesson 2). An illustration of this is given below.

".....in order to bring about gender equity in health, our strategies have to address both practical needs (short term need related to daily needs: food, housing, income, health of family etc) and strategic needs (long term needs relate to disadvantaged position, subordination, lack of resources and education, vulnerability to poverty, violence etc). This means that a plan, in addition to involving women as beneficiaries and participants in order to improve the condition of their lives, should also involve and enable them as agents in the process of improving the position of women in society and transforming gender relations.

(Addressing Practical needs)

The interventions in Chhattisgarh incorporated both these aspects. There is a renewed commitment to improving women's access to quality healthcare by strengthening facilities to provide Emergency Obstetric Care (EmOC), training Skilled birth attendants, multiskilling of Doctors in EmOC and Anaesthesia, streamlining Janani Suraksha Yojana, introduction of the JSY help line, recruitment of staff nurses and ANMs, operationalisation of 24hour PHC etc. An important proposal that has been made this year is that of formation of Maternal and Infant death auditing committees. For pregnant women in disease prone areas, special ANC kit with impregnated bed nets and IFA has been planned.

(Addressing Strategic needs)

Interventions like Mitadin programme, formation of women health committee and village health sanitation committee (Convener of VHSC is Mitadin) at village level, has shown the way for leadership building and women's empowerment. The Mitadins have emerged as women leaders taking forward and fighting for gender equity. Formation of women's health committees at the village level has led to addressing the issues of gender and equity like women exclusion, discrimination, violence, marginalisation, alcoholism and destitution etc. Activities like Mitadin diary under Mitadin programme are also focused to address the problems of social exclusion, marginalisation and health entitlements at the hamlet level. Programmes like Swasthya Panchayat Yojana and village health sanitation committee aim to tackle the disparities at hamlet, village and Panchayat level. It is a mechanism to address the issues related with equity and gender. It is also an attempt to overcome inter and intra Panchayat variations and disparities. Making the Mitadin the Convener of VHSC is a further step forward to creating spaces for women for the proper inclusion of their issues in village health plan with an ownership over community resources."

Portion on Equity/Gender, Extract from Chhattisgarh NRHM PIP 2009-10



3 Pillars of Action

The strategies can be grouped under 3 "pillars of action". The three pillars are:

- Research, monitoring to measure and describe gender inequities and making use of available secondary data (such as NFHS)
- Advocacy and public participation to promote the use of information to effect change involving a broad range of stakeholders from civil society and government-working together in a movement for equity
- Community empowerment (involve women as active participants rather than passive recipients)

Therefore, the strategy will consist of a set of interconnected and overlapping actions. For example, the selection of equity indicators to measure and monitor should be informed by the views of community groups and by a consideration of what would be useful from an advocacy perspective. In turn, the advocacy pillar relies on indicators developed by the measurement pillar and may involve community members or public figures. These actions need not follow a temporal sequence and should happen concurrently.

Formulated by Dr Prasantha Tripathy, Ekjut, Jharkhand

Here are some specific suggestions for tribal women's health in the DHAP

1. Improving sex ratio: The first step is to analysis the sex ratio of the block and district in the last couple of decades. The sex ratio can be very easily calculated for any unit (village, panchayat, block or district) by getting data from the census and applying the following formula-

$$\frac{\text{ST Population Female} \times 1000}{\text{ST Population Male}}$$

This will give us an idea of whether the sex ratio is declining. It is useful to analyze data on termination of pregnancy (abortion) in the district. Action will have to be taken to preserve the positive sex ratio and address the declining sex ratio. This can be done through a widespread campaign on the declining sex ratio and male preference and making it a social issue and also strictly implementing the PCPNDT Act.

2. Combating violence against women: The victim of violence coming to a health facility needs to receive proper and sensitive treatment and care. Other than physical wounds, there is mental hurt which has to be dealt with specifically by another woman. There should be a designated woman worker who is able to talk to such victims. The DHAP should provide for training of such people and also of doctors and other health functionaries to maintain sensitivity and recognize the signs of violence.

In the case of witch hunting, you have to be able to track such cases in your area and act immediately to

stop it along with the help of the police and district administration. In the States where there is no law against witch hunting, there has to be advocacy for it to be formulated.

3. ASHA as a strategy for empowering tribal women

The Accredited Social Health Activist (ASHA) programme can not only address practical needs of providing basic prevention and treatment related services to women at hamlet level along with improving their access to health services, but also strategic needs of empowering women to participate equally in planning and decision making in health.(see above)

But for this to happen, the programme needs to be designed accordingly:

a) Selection of ASHA in tribal hamlet- NRHM makes provision for one ASHA per hamlet in tribal areas. This should be taken up and all tribal hamlets should have ASHAs belonging to that tribal community. This will further help them to bridge the gap between the community and the health system.

b) Engendered Training Curriculum- ASHA training curriculum should encompass strong elements of gender analysis and gender equity. Issues like domestic violence, discrimination faced by women etc. need to be part of the training.

c) Women-based Support system- The support system for ASHAs in tribal areas including trainers and facilitators has to consist of tribal women. It will further help in the formation of a women-centric programme.

d) Participation in local governance- Opportunities have to be given to the ASHA as member of Village Health Committee, Community Monitoring Committees and Rogi Kalyan Samitis etc in order that they can give a gender perspective in health planning.

Women's empowerment through ASHA: Some examples

- In one state, around 3000 ASHAs got elected as Sarpanch or Ward Panch. There has been an increase in women's participation in Gram Sabhas after ASHAs mobilized women of the village to actively participate in them.
- In a state where a lot of focus had been given on gender issues in ASHA training, an ASHA was asked by a visitor, how her life has changed. The ASHA said that earlier, as she would eat last in her family, many a time the vegetable would get finished or very little rice would be left. So she used to just eat what ever was left over even if she had to go hungry. But today, though she still eats at the end, if any item gets finished, she again cooks for herself and never goes hungry. She said that she has realized that this is her right and she has to take care of herself.
- In tribal areas of a state there has been an increase in feeding of mother after delivery due to the



efforts of ASHA. ASHAs many a time force families and even threaten them to give food to the lady who has just delivered the child.

- In another tribal state, ASHAs of a panchayat mobilized rest of the women to close down an alcohol shop.

4. Ensuring tribal women's participation in community processes of NRHM - In tribal areas, in the various communitisation processes under NRHM it is necessary to ensure that tribal women participate equally.

All committees formed under this process, like Rogi Kalyan Samitis, Village Health Committees, Community Monitoring Committees etc should have equal representation of women. For example, there may be a block with 65% tribal population and not have a single tribal woman as member in the Hospital Management Committee.

Find out the gender composition of the Rogi Kalyan samitis of your block/ district. What is the representation of tribal women? Does it correlate with the population of tribal women in that area?

5. Combating Anemia in tribal women

- Nutritional counselling
- Ensuring regular supply of IFA and deworming to adolescent girls through School Health Scheme
- Ensuring regular supply of IFA to pregnant women
- Provision of Haemoglobinometer to all Sub-Centers in order to measure anemia
- Effective and speedy management of malaria
- Screening for Thalassemia and Sickle Cell Anemia in high prevalence areas

6. Combating Malnutrition in tribal women

Measures to combat malnutrition among tribal women will have to take into account the overall social discrimination, poor access to food schemes and lack of ownership over resources etc. Some specific strategies include:

- Provision of adult weighing machine to all Sub-Centers and PHCs
- Ensuring weighing of all pregnant women in the block/district
- Regular provision of supplementary nutrition to adolescent girls and pregnant and lactating women
- Training ASHA on discrimination against women and how to combat it by organizing women
- Partnership with women's groups for spreading awareness

• Partnership with women's leadership and organisations

There is need to identify the women's organisations and women leaders who are there in these areas and take their help in formulating and implementing the DHAP at various levels. Women's organisations may be in the form of village level SHGs, women's forest based co-operatives, Joint Forest management committees, women's rights based organisation, union (Anganwadi worker union, ANM union etc). Women leaders may be women Panchs and Sarpanchs, ASHAs, and leaders of the above organisations.

Women's empowerment through a trained facilitator who takes women's group members through a participatory learning and action cycle to address many health related issues including inequities has been tried successfully in several districts inhabited by tribal people. As mentioned above, ASHAs have played important role in such community mobilization process.

Other initiatives like Community Based Monitoring provided a platform for women to discuss their issues and demands. CBM has good method of data collection and suggestion from the community can be incorporated in planning process. Women's organisations undertook monitoring of health services in states of Maharashtra, MP and Chhattisgarh. They then undertook advocacy for a number of issues like illegal payments at the hospital, irrational treatment, non-availability of staff etc. Some of these could be incorporated in the DHAP. The process was also empowering for the women.

- Monitoring gender mainstreaming of DHAP in tribal context- Any plan or programme has to be scrutinized for gender mainstreaming. The framework for this has been given below and detailed in Book 6 Lesson 2. The framework not only helps to monitor gender mainstreaming in the DHAP but also tells us how to formulate it.

Monitoring Gender Mainstreaming in District health plans

Component	Extent to which the following aspects are followed
Baseline data	Gender disaggregated data availability
Consultation/ Decision making	Women's participation in formulation, implementation and monitoring of programme/consulting with women's groups,
Objectives and Strategies	Specific goals with respect to women's health and gender equality
Service provision and programme design	Increase women's access to services, gender profile of service providers, relevance of programme to women's need, facility design in tune with women's needs, specific disease control programmes to be gender friendly- TB, Leprosy
Health communication	Do they address both men and women, avoiding gender stereotyping and bias, explicitly addressing gender inequities, links between patriarchy and ill health



Training	Gender profile of trainees and trainers, avoiding gender bias in choice of training programmes and content
Gender analysis and skill training	Incorporation of these skills in programme
Outcomes and impact indicators	Gender disaggregated Assess impact on both practical needs and strategic interests
Workforce management	Promotion avenues for women employees, Protection against sexual harassment, Addressing issues of mobility, Maternity benefits

- Preference for tribal women in health education and jobs - Women form the largest cadre in the health system. In addition to the stipulated ST quota, tribal girls/women should be encouraged in every way to partake higher training in health, e.g. as Doctors, ANM, Staff nurses, or lab technicians. This will improve their chances of getting employment in the health sector in the tribal area. This can also solve the problem of human resource retention in remote tribal areas.
- Special provisions for women workforce in tribal areas- Special provisions for proper housing, travel etc should be made for women workforce so that they are motivated to stay in tribal areas.
- Women friendly services at the facility- Health facilities need to provide services like safe drinking water, sanitation, and food. For women patients privacy is very important.
- Action on laws related to women- The district plan has to make provisions for implementing laws like the PCPNDT Act, Domestic Violence Act, Sexual harassment Act and Anti-Witch hunting law. It has to provide for training of Doctors and other health functionaries on these laws.
- Male participation and responsibility in women's health- Men need to be educated about the importance of women's nutrition and access to health services. Various Behaviour Change Communication (BCC) programmes should address men and not only women. Such discussions could take place in tribal panchayats or village councils.

Review Questions:

1. What are the reasons for high malnutrition among tribal women?
2. What are the forms of discrimination faced by tribal women and how does it affect their health?
3. What is Witch hunting? How does it affect women's health?
4. How is sex ratio calculated?
5. In what ways can ASHA impact women's empowerment?

Application Question:

1. How can you ensure equal participation of tribal women in the various community processes in NRHM?
2. What should the role of Doctor/health personnel be when a victim of domestic violence comes to her/him?

3. What are the major forms of gender discrimination in tribal areas. How can health staff be sensitized towards it?
4. Decide five most appropriate indicators which reflect gender equity in healthcare delivery.

Project Work:

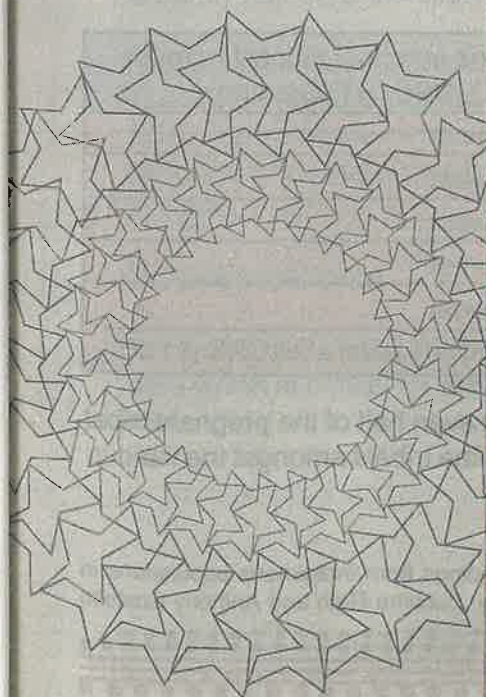
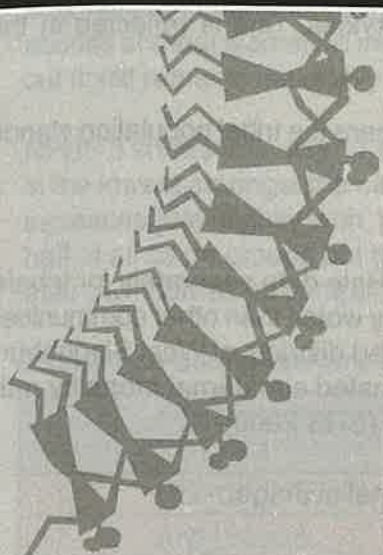
1. Collect data on tribal sex ratio for a tribal block/district you are familiar with? How does it differ from general populations? What was it in the last 3 census? Has it declined? What do you think are the reasons for this decline?
2. Plan for a training on gender for ASHAs. Remember to cover strategies for addressing both practical and strategic needs of women.

Lesson FOUR

Healthcare Services In Tribal Areas

In this lesson we shall discuss:

- The status of health and healthcare services in tribal areas
- Gaps in health services delivery in tribal areas
- Strategies for filling these gaps



INTRODUCTION

Tribal communities face severe difficulties in accessing healthcare services. This is reflected in the extremely poor health status of these communities.

Let us examine the various health and health service indicators and see where the tribal population stands.

MATERNAL HEALTH

Although there are no reliable sources which provide Maternal Mortality Rate data separately for tribals, there is enough evidence from micro-studies that it is very high and definitely worse than other communities. For example, an initiative to measure maternal mortality in tribal dominated districts of West Singhbhum and Saraikela-Kharswan in Jharkhand and Keonjhar in Orissa, has estimated a maternal mortality ratio (MMR) of 722 per 100 000 live births² whereas the national MMR is 301 (SRS 2000).

Thus, the MMR for tribal population might be two to three times the national average.

1. Ante-Natal Care

The availability of ANC services in the tribal areas is very poor. As per NFHS-3, as many as 29% of the tribal pregnant women are not getting any ANC services, which is the worst status amongst all caste groups. Secondly, amongst the tribal women receiving ANC services, only 32.8% are getting them from a qualified doctor. This indicator for STs is much lower than the 50% figure for all the caste groups put together. Thus fewer tribal women receive ANC services and that too is from a less qualified provider.

Access to ANC services (NFHS 3)

S. No	ANC service	Tribal%	India%	Rank amongst all caste groups (SC, OBC, ST, General)
1	2 TT	61.9%	76.3%	Lowest
2	BP	48.7%	63.8%	Lowest
3	Urine	40.2%	58.1%	Lowest
4	Blood	44.7%	59.5%	Lowest
5	Abdomen exam	63.5%	72%	Lowest
6	Given or purchased IFA	62%	65.1%	Second lowest after OBC (61.6%)

The above data shows that the lab based ANC services are not reaching even half of the pregnant tribal women. Even the ANC services provided through ANM are the lowest for the tribals amongst the various caste groups.

²A prospective key informant surveillance system to measure maternal mortality – findings from indigenous populations in Jharkhand and Orissa, India, Sarah Barnett, Nirmala Nair, Prasanta Tripathy, Jo Borghi, Suchitra Rath and Anthony Costello



2. Child Birth related services

Majority of tribal women give birth at home and many a times even in the absence of a TBA or a Dai. The access of tribal women to institutional delivery services has increased in the last few years after NRHM, but it still remains miserably poor. This is reflected in the NFHS 3 data.

NFHS 3 shows that only 11.6% of the pregnant tribal women are able to give birth in a public facility. This is the lowest amongst the caste groups. When we take into account the private facilities, the percentage increases just slightly with 17.7% tribal women having delivery in any health facility which is less than half of all caste groups put together (38%). Hence it is no surprise that 70.9% of tribal women deliver in their own homes as compared to 53.1% of the women of all caste groups together.

Assistance during delivery (NFHS 3)

S. No	Assisting delivery	Tribal%	India%	Rank amongst all caste groups (SC, OBC, ST, General)
1	Doctor	17.1	35.2	Lowest
2	ANM/Nurse	7.0	10.3	Lowest
3	Dai	50.3	36.5	Highest
4	Friends	23	16.2	Highest
5	No one	1.3	0.1	Highest
6	Skilled provider	25.4	46.6	Lowest

The above data shows that only 25% of tribal women had deliveries assisted by a skilled provider which is barely half of all the caste groups together.

Hence we see that deliveries are being done at home and through traditional birth attendants or friends. The tribal pregnant woman is not able to reach any health facility and even at home is not assisted by SBA. The risks are high and at the time of emergency, most of the time it is not possible to take the patient to a functional health facility, due to distance, difficult terrain and a very weak referral transportation system.

3. Post natal care

According to NFHS 3, the largest percentage of (around 69%) of tribal women did not receive post natal care which is critical for identifying complications and also is a vehicle for counseling on breastfeeding etc.

4. Family planning

In family planning too, the status of tribal population is much worse than the other caste groups. For example, percentage of women using any contraception method is lowest at 47.9% in comparison to 56.3% with all caste groups put together.

One major issue with Family Planning is with regards to the Primitive Tribal Groups who are not being allowed to access sterilization services. We will examine this issue in detail in the lesson on PTGs.

CHILD HEALTH

1. Infant and Child mortality

The Infant Mortality Rate amongst tribal population is slightly higher than other communities. The IMR for STs is 64 whereas the national average is 62. But, tribal populations fare much worse when it comes to the child (under age of five) mortality. The child mortality rate for STs is 100 as compared to the national average of 82. This shows that the probability of a tribal child's survival goes down drastically as the child grows.

2. Immunization

This is one of the most basic child care services which enjoys higher levels of commitment from the health system. Unfortunately, even this service is quite weak in tribal areas. The NFHS 3 data shows that more than 11% of tribal children did not get any vaccination at all. This percentage is double than all caste groups put together. The proportion of tribal children receiving full immunization is 31.3%, much lower than the national average of 43.5%.

Immunisation coverage (NFHS 3)

S. No	Immunisation	Tribal%	India%	Rank amongst all caste groups (SC, OBC, ST, General)
1	BCG	71.1	78.1	Lowest
2	Measles	46.1	58	Lowest
3	All vaccine	31.3	43.5	Lowest
4	No vaccine	11.5	5.1	Highest and Double than SC

3. Accessing public provider for childhood illnesses

In terms of accessing the public health system for child illnesses, the NFHS 3 data once again shows that the tribals are worse off than any other caste group. For example, for tribal children with symptoms of ARI (Acute Respiratory tract Infection), help sought from a health facility or provider only in 57% of the cases. This is significantly lower than the national average of 69%.



In children with fever for whom help was sought, the percentage amongst tribals is again the lowest at 61.3%, the national average being 70.8%.

In the case of tribal children under five with diarrhea who have been taken to a provider, once again the percentage is the lowest at only 54.3%.

STATUS OF SOME OTHER HEALTHCARE SERVICES

1. Anti-Venom and Anti-Rabies injections

The availability of critical emergency services for snake bite and dog bite is weak. This situation persists even though more snakebite cases are reported in tribal areas compared to other places.

The People's Rural Health Watch Report (2007) based on survey of 23 tribal blocks of Chhattisgarh says:

"Anti-rabies vaccine was not available in many PHCs and CHCs. Anti-snake venom too was not available regularly. In 2006 51 % of the PHC-MOs reported that anti-rabies vaccine was not available, while 19% reported occasional availability. 46% reported non-availability of anti-snake venom in the PHC, while 12% said that it was available sometimes. The situation was no better in CHCs, with regards to anti-rabies vaccine which was not available in 49% of the CHCs. 30% of the CHCs said they had no anti-snake venom.

2. Operationalising 24x7 PHCs and FRUs

The access to health services in tribal areas can improve dramatically by operationalising 24x7 PHCs, but due to reasons we will be discussing below, the 24x7 PHCs are proving difficult to achieve in tribal areas. This is also the case with the designated FRUs.

The CMS Report of tribal state of Chhattisgarh talks about the availability of delivery services at the FRU and 24x7 PHCs - "Normal delivery services are available in all FRUs, including the District Hospitals. However, around 13 percent of 24x7 PHCs (17 facilities) do not provide normal delivery service."

Regarding C-section, their finding is that, "Cesarean Section is available in nearly all District Hospitals (15 out of 16). However, this is not the case with regard to CHCs. Only 6.3 percent of them perform Cesarean Section".

3. Burden of Communicable Diseases

Tribal areas have higher burden of communicable diseases like malaria. Occurrence of diarrhea epidemics is also extremely common in tribal areas. These diseases cause very high mortality amongst tribal communities. The prevalence of TB is also very high in tribal areas. RNTCP itself has recognized that its implementation has been weak in tribal areas.

What do you think the reasons are for higher burden of communicable diseases in tribal areas?

The RNTCP Tribal Action Plan states some reasons for difficulties faced in implementation of the programme in tribal areas-

"The remoteness of many tribal villages from the nearest PHC / General Hospital, inadequate accountability and monitoring of health service delivery to tribal populations, unhelpful attitudes of health service personnel, manpower at health facilities either not available or available only for a very small window of time have been documented as constraints to access and utilization of health services in tribal areas (THDP 2003). Besides, poor or incorrect knowledge among tribal population also dictates inadequate health seeking behaviour.

3) Some of the problems faced by programme managers while implementing RNTCP in tribal areas based on data from Keonjhar district in Orissa (AC Nielsen-ORG 2005) are as follows:

a) Significant proportion of tribal population live in small settlements and there is lack of adequate health staff for extension of services at an accessible distance to this population

i) Limitations of non-tribal health workers in motivating the tribal patients to complete treatment by mobilizing the community support.

ii) Inadequate transport facilities make it difficult for patients to reach health functionaries/health centers on time.....

d) The first point of help seeking for most tribal TB patients, as documented by the survey, was traditional healers following home remedies, the gap between onset of symptoms and help seeking ranging between 4 and 5 months. A study in Vizianagaram district of Andhra Pradesh (Banerjee A et al 2004) also demonstrated similar health seeking behaviour among tribals. The delay between onset of symptoms and initiation of treatment under the RNTCP was 8 months or more for 30% of the patients in this study. This study also documented that though the majority of the THs were not aware of the cause or spread of TB, more than 90% believed TB is curable and most preferred to refer patients to a PHC or private allopathic practitioners when they were unable to treat their clients rather than another TH.

i) The methods most often employed by traditional healers was witchcraft using pulses and other seeds, for both diagnosis and treatment.

ii) Tribals usually resorted to these kinds of treatment because of local beliefs, cost and lack of awareness about treatment options.

e) Patients in tribal areas had to travel long distances to reach Microscopy and DOT centers.

i) Patients traveled between 1.5 to 10 km to reach the DOT centers in the 3 districts studied.

ii) Inaccessibility was an issue to tribal patients more when they had to visit a facility for initial diagnosis, though later on the treatment facility/ DOT provider was relatively close to them."



4. Sickle Cell Anemia

Sickle cell anemia is a genetic disorder which is found predominantly amongst STs, Scs and OBCs mostly in the states of Madhya Pradesh, Chhattisgarh, Maharashtra, Orissa, Jharkhand and parts of Andhra Pradesh. The prevalence amongst STs is high. For example, in Madhya Pradesh, 'among Gonds, the prevalence of sickle haemoglobin varies from 10% to 25% where as in the Bhils, the prevalence rate varies from 15% to 33%.....Out of 45 districts, 27 fall under sickle cell belt' (Sickle cell disease load in Madhya Pradesh, Dr. R. B. Gupta, Assistant Director, RMRCT Update April 2006).

Another study in Maharashtra also shows high prevalence of sickle cell anaemia amongst STs.

Prevalence of Sickle Cell disorder (carrier) amongst Schedule Tribe population groups
(State of Maharashtra)

Tribe	District	Prevalence %
Otkar	Gadchiroli	35
Pardhan	Gadchiroli, Chandrapur, Yetwatmal	32
Pawara	Nandurbar, Jalgaon	25
Madia	Gadchiroli	20
Bhill	Nandurbar	20
Halbi	Gadchiroli	13
Rajgond	Gadchiroli	11
Korku	Amravati	10
Kolum	Yewatmal	09
Warli	Thane	09
Katkari	Pune, Raigad	07
Kokana	Nashik	04
Andha	Nanded	02
Mahadeo Koli	Pune, Nashik	01
Thakar	Pune, Raigad	01
Paradhi	Solapur	00

Source : Kate and Lingojar, Epidemiology of the sickle cell disorder in the state of Maharashtra, Int J Hum Genet (2002)

The efforts made to estimate the magnitude of the problem have not been adequate. Lack of proper diagnostic facilities in the tribal areas remains a big road block in detecting the disease. Blood storage

facilities are missing. Action on prevention of the disease and management of case is crucial, but these too are also not happening in tribal areas.

WHAT ARE THE FACTORS FOR MAJOR GAPS IN HEALTH SERVICES DELIVERY IN TRIBAL AREAS?

1. Scattered habitation, geographical factors:

Tribal habitations are usually scattered over large areas. This settlement pattern makes it difficult to provide adequate coverage in any programme. Even outreach services are very difficult to provide. The low population density thus becomes a problem in ensuring services through conventional means.

Most of the tribal habitations are situated in remote and poorly accessible areas. The landscape is covered with forests, hills, rivers and streams. Transportation links are also very weak. Most of the traveling is done by foot as there is no other option. Hence it becomes very difficult for the people to reach the health facilities. Many a time patients have to be carried on the shoulder or in a sling across hills and forest to reach the nearest health facility.

The difficult terrain and remoteness also deters health staff from being posted in these areas.

2. Shortfalls in facilities as per population norms for tribal areas:

Taking into account the character and needs of a tribal area there are lower population norms for facilities with the objective of reaching the public health services to the tribals. But there are shortfalls as per the number of facilities required and the number actually existing.

According to the Rural Health Statistics Bulletin (which is based on Government reported information), there is 19% shortfall as per total requirement of HSCs in tribal areas in the country and the similar 19% shortfall of PHCs in the tribal areas (March 2007 Bulletin). The situation is more serious with regards to CHCs where there are 25% less CHCs in tribal areas than required.

Is there a need for population norms to be revised for tribal areas?

3. Lack of human resource:

Tribal areas are marked by under development. Infrastructure facilities like electricity, roads, and housing, along with education facilities are inadequate. Big towns with markets are distant. Some of the tribal areas are disturbed areas and have experienced many violent movements. As a result of all this, there is shortage of human power in the public health system willing to be posted in these areas.



Where there is human power, they are not readily accessible to the people. A large number of Medical officers and ANMs don't stay at their sub-center or PHC headquarters. Many a time doctors/nurses/ANMs who are posted in PHCs and Sub-centers, get attached to the CHC/District hospital. Hence in such areas operationalisation of 24x7 CHCs and PHCs becomes difficult to achieve.

Also, due to lack of education facilities and opportunities, the numbers of Doctors, Nurses, ANMs, Lab technicians etc coming from tribal areas are negligible.

The absence of adequate doctors, nurses, ANMs and other functionaries in the CHC or a MO in the PHC or an ANM in the sub-center greatly compromises the quality and more importantly the availability of health services.

Shortfall of health personnel in tribals areas

S. No	Health personnel	Shortfall against requirement
1	Health Worker (F)/ANM	13%
2	Health Worker (M)	35%
3	LHVs at PHCs	29%
4	Doctor at PHCs	18%
5	Surgeon at CHCs	83%
6	Obstetricians and Gynecologists at CHC	81%
7	Pediatricians at CHC	89%
8	Pharmacists at CHC and PHC	27%
9	Lab Technicians at CHC and PHC	48%
10	Staff Nurse at CHC and PHC	50%

Source : Rural Health Statistics, March 20007

The PRHW survey in Chhattisgarh further illustrates the human resource situation:

'However, the situation in CHCs is not very good. The 2008 survey shows that there is an average of only 4 Doctors per CHC. Among the 22 CHCs surveyed, 13% had only one doctor each, 9% CHCs were with 2 doctors each, and 32% CHCs with only 3 doctors each. The number of women doctors has increased marginally. While there have been appointments of staff nurses, still gaps remain. In addition, the present staff nurses are not placed equitably. In fact the Government data shows excess in couple of districts as per the sanctioned numbers in more urbanized mainstream districts like Durg (34 extra) and Rajnandgaon (36 extra). On the other hand, remote tribal districts like Sarguja, Jashpur, Koriya, Bastar, Dantewada and Kawardha show shortages of 19 to 28 staff nurses. As far as MOs are concerned, 52% of the posts are lying vacant (Government of CG data). Even amongst the medical officers currently placed at PHCs, around 25% do not have MBBS qualification.'

(Health Services and the National Rural health mission, Report, People's Rural Health Watch, Jan Swasthya Abhiyan, March 2008)

The negative impact on health indicators is visible.

What do you think are the special efforts that are needed to address this shortage?

4. Lack of Infrastructure:

In tribal areas, as discussed above, public infrastructure is sparse and accessibility is a major issue. Hence it is more important in tribal areas to have adequate infrastructure in health facilities.

- a) **Buildings**-It is essential to have PHC and Sub-center buildings with proper residential quarters for staff. For a patient walking/being carried over hills and through forests, it is important to have proper facilities to stay if required. Along with buildings, basic facilities like electricity, running water, safe drinking water and clean toilets are a necessity both for the patients and the health staff. But a large number of Sub-centers are running in rented houses which are mostly 'kuchha' houses with no basic facilities like running water and electricity. According to the Rural Health Statistics March 2007, there is 32% shortage of Sub center buildings and 10% shortage of PHCs buildings in tribal areas.

The following case illustrates the status of infrastructure in tribal areas-

Melghat region in Amravati District of Maharashtra is one of the most backward regions of the state. Its tribal population is above 75% with high rates of malnutrition, infant mortality and maternal mortality. Melghat Nutrition and Action Plan has been prepared under NRHM to address the specific issues of the area. Melghat region consists of Dharni and Chikaldhara blocks. An enumeration of the status infrastructure of sub-centers and PHCs in the region is very illuminating. In Dharni block, out of the 56 HSCs, 32 need major repairs and 5 are in need of new building. Regular power supply is available in only 22 and water supply is available in only 16 out of the 56 HSCs. None of the centers conduct deliveries nor do they have a delivery room. Similarly, in Chikaldhara block, out of the 42 HSCs, 16 need major repairs and 8 need new buildings. Regular running water is available only in 14 and regular power supply only in 20 HSCs. 12 out of the 42 HSCs conduct deliveries and 15 have labour rooms. Amongst the 11 PHC building in Melghat region, 7 need major repairs while 2 need a new building while running water is available in less than half of the PHCs.

(Adapted from Melghat Health and Nutrition Action Plan, NRHM, Amravati District)

- b) **Blood Storage**- Blood storage is another critical missing element in most CHCs. According to the Chhattisgarh CMS Report, "Blood Bank service is available at 75 percent of District Hospitals but at none of the CHCs (FRU). Only 4.3 percent of CHCs have a blood storage facility".



c) **Laboratory Facilities-** There is a lack of critical laboratory facilities at the PHCs.

d) **Referral Transport-**Referral transport is significantly more critical for tribal areas where both public and private transport facilities are limited. The lack of adequate referral transport further restricts people's access to the health facilities even in the time of emergencies.

As the CMS report also states, "While 93.4 percent of CHCs have functional ambulances only 80 percent of facilities have adequate funds for running them. Surprisingly, only 77 percent of CHCs can assure 24x7 referral transport". However the actual availability of the ambulances for patients has been questioned. As per the People's Rural Health Watch report - 'In Chhattisgarh 72% of CHCs have ambulances in working condition but very infrequently available to patients, and is a paid facility when available'.

The situation is much worse at the PHC level where "only about 46 percent of PHCs have a mechanism in place to ensure 24x7 referral services. Only 6 percent of 24x7 PHCs have a functional ambulance at the facility" (CMS Report)²

5. The Perceived Lack of Demand for healthcare services in Tribal areas: What is the reality?

Many report on the supposed lack of demand for healthcare services in tribal areas with graphs after graphs showing poor utilization of health services. Do you think this is the real picture. Let us see the case study in the box given below

Case Study

Ramiya bai had fever. The ANM had come to her village for immunization so she went to her. The ANM gave her 4 tablets and took her blood slide. She said that she might have malaria and told her that if result is positive, she will have to take dose for 3 more days. 2 days passed and no result came. Meanwhile she became weaker. Her husband took her to the PHC but by the time they reached, it was already closed. As the Doctor did not live there, he had gone back to the town. Now they went to guniya who said that he will cure her for 2 hens and 1 quintal rice. They gave but she still did not get well. She stopped walking and was too weak to get up. The family decided to take her to the CHC. But vehicle not available to waited for 2 days. Till then she was nearly unconscious. They carried her to the main road and then took the bus. By the time they reached, she had died. When the news of a fever related death reached the CHC, the doctor remarked "These tribals never change. They never come to us on time. They will keep following their baiga guniyas. They keep dying because of their own fault. And I have to face the consequences."

²Rapid Assessment of the Functionality of FRUs and 24x7 PHCs in Chattisgarh conducted by CMS social on behalf of the German Technical Cooperation (GTZ) for the Ministry of Health and Family Welfare, Government of India

Would the outcome been different in any of the situations below?

- There had been a health worker at the village level with essential drugs like CQ and arrangements for timely diagnosis
- The Doctor been staying at the PHC
- The family been aware of the seriousness of her illness?
- The facilities for referral transport been available to them?

What do the Surveys say about tribal people accessing public health facilities:

NSS 60th Round data shows that there is more dependence of STs on the public health system than any other social group. Among tribals in rural areas, the proportion of illness spells treated in a government facility was much higher (325 per 1000) than all groups together (224 per 1000).

'While for the people belonging to the ST and SC categories, treatment was from the Government institutions in about 24 to 33 per cent of the treated cases of ailments, the proportion was about 17 to 20 per cent for the people belonging to the others categories.'

(NSS 60th Round January-June 2004)

The survey above shows that despite a weaker public health system in tribal areas, it is accessed quite often by tribals. This negates the notion that tribal people do not want to come to public health facilities. However there is an element of truth in these perceptions as traditional faith healing is still very commonly practiced in tribal areas. Lack of timely and adequate services in public health system pushes people towards private and more so the quacks and traditional health practitioners. People who do reach the public health system incur out of pocket expenses which they can ill afford. The low performance of the health system reinforces the belief in traditional medicine and jhaar phoonk. The traditional practitioners are readily accessible to the tribals, they are able to respond according to the belief system of the tribal people and their needs like giving credit, taking their fees in commodities rather than cash.

Many a times the people are unaware of the consequences of a disease/condition. They are not aware of the danger signs hence keep working till they collapse. It is only then that the patient is finally taken to the health system.

Sometimes the health workers keep pushing their own agenda but do not cater to the felt needs of the community and hence many a time does not get positive response. An ANM who assists births when called, or during a medical emergency would have a much better response for immunization than one who does not.



The western system of medicine has been an alien concept for tribal communities to which they have adapted with varying degrees depending on their degree and period of assimilation with the 'mainstream society'. Hence they feel a sense of alienation and powerlessness with the whole health system. This is enhanced by the system's response. This hesitation to engage with the public health system will only be broken by involving tribal communities in health planning, implementation and monitoring.

As the availability of effective modern health facilities improved, the faith healing practices became less common. Most tribals have now started using both systems simultaneously.

SOME STRATEGIES IN IMPROVING ACCESS OF TRIBAL COMMUNITIES TO HEALTH SERVICES

1. Assessing the health status of tribals in the area and their access to health services:

First of all, baseline data on tribals has to be collected, which reflect both their status of health and health services. This can be partly done through analysis of secondary data. But disaggregated data of tribals may not be readily available and will have to be searched from various sources or through one's own research.

Information collected on tribals has to include nutritional status of children and adults, access to health programmes like immunization coverage, institutional delivery, ASHA, access to food programmes like ICDS, Mid day meal, ration etc.

Data pertaining to tribals in national programmes has to be analysed to see what percentage of tribals in the area are being covered under them.

For example: What percentage of tribals is getting TB treatment under RNTCP? What percentage of beneficiaries under the Janani Suraksha Yojana are tribals?

In order to fully understand the tribal situation, it is important to undertake Community Needs Assessment. Managers and planners have to go into the community and in a structured way through Focused Group Discussions, Participatory Rural Appraisal, Social Mapping etc. (Refer to Lesson 7)

2. Giving preference to tribal areas and planning to fulfil the gaps in needy area:

The first principle to be followed is that of giving priority to tribal areas in most aspects like sending more human resource, resources for infrastructure, drugs and equipment etc. Even within a district where there are tribal and underserved pockets, they need to be prioritized for allocating resources and doing interventions.

When making a DHAP, there has to be mapping of all the facilities and human resource along with of needy areas which require special focus. The resources can be directed to such areas. Posting of human resources in tribal health facilities has shown to improve the services most significantly.

Example: A comparison of 2 PHCs - Salka in Sarguja and Kelhari in Koriya district shows the importance of human resources being posted. Both PHCs are situated in predominantly tribal areas and have similar geographical situation. Both had one MO and a compounder each. No institutional deliveries were happening in either of the PHCs. Two staff nurses recently joined the Salka PHC. The staff nurse appointed for Kelhari PHC managed to avoid joining the PHC and got herself attached to a facility based in an urban area. Today, around 12-18 institutional deliveries take place per month in Salka PHC but Kelhari is yet to make a start.

3. Strengthening village based services:

- a) **Implementing the 2 ANM per sub-center norm-** NRHM provides for this norm for all HSCs. But the implementation of this remains very slow. One reason being that enough ANMs are not available or being trained. But as the availability of ANMs improve, preference should be given to the tribal areas in terms of posting the new ANMs. This is especially important considering the overwhelming dependence of tribal populations on HSCs.
- b) **Strengthening ASHA in tribal areas-** NRHM gives the opportunity for trained ASHAs to provide basic healthcare at village level and facilitate linkages with larger public health system. In the context of tribal areas, some of the basic healthcare is absolutely critical to be provided at the hamlet level itself. E.g. promotion of home based oral rehydration by ASHA can make a big difference. Availability of a drug kit with ASHAs is also of crucial importance.
- c) For hilly, tribal areas, **the population norms have been made flexible** by NRHM and one ASHA per habitation is permitted. Some of the states (like Chhattisgarh and Jharkhand) have taken up this initiative to make use of this provision. Having one ASHA per habitation (instead of 1000 population) can be helpful in effectively covering the scattered tribal population. Having habitation based ASHA will help in getting greater representation of tribal women in this pool. This in turn will help in bringing the tribal communities closer to the health system.

4. Alternative human resource policy- In view of the severe human resource crunch in tribal areas, many states have chosen alternative human resource policies to provide the necessary health services.

- a) **BAMS as Medical Officers in tribal PHCs** - This has been tried on a large scale in Chhattisgarh and Assam. They have been mostly placed in tribal blocks. This strategy has helped in getting MOs for otherwise completely un-functional PHCs. But it has been observed that these doctors have to practice allopathic medicine while their training is in the Ayurvedic stream. It is important



that they are given training in allopathic diagnosis and treatment protocols including specific high priority skills, before placement.

- b) **Short medical course graduates recruited as Rural Medical Assistants in tribal PHCs and CHCs-** This has been experimented in Chhattisgarh where a 3 years medical course had been introduced. Now such graduates are being posted in tribal areas as rural Medical Assistants. This again has already helped the state in sending 225 healthcare providers to tribal areas. Eg. in many tribal PHCs, they are able to have a 'doctor' for the first time in form of these RMAs. The initial anecdotal evidence about this cadre has been positive at least in terms of community perceptions.

However, both these strategies are yet to prove as effective components of public health system. The following questions still remain to be answered:

- Is placing these personnel an important step in closing the healthcare provision gap in under-served tribal areas?
 - Will such postings weaken the health system and result in poor quality services?
 - Is it a form of discrimination against tribal areas whereby less qualified personnel are sent there?
 - How rational and effective these personnel are?
 - Should these strategies be seen only as stop gap arrangements? Should efforts be made to bring in better qualified personnel over a period of time?
- c) **ANM and Staff Nurse Recruitment-** Special provisions can be made for applicants from tribal areas. E.g. 10th standard pass ASHAs from tribal areas can be recruited as ANMs under the condition that they will serve only in that area. Some of the ANMs can be trained further to become staff nurses. Trained nurses from outside the states can also be allowed (one-time) as candidates for exclusive posting in tribal areas. Trained nurses from private sector institutions can also be brought in.
- d) **ANM training schools:** This is also a priority for NRHM. The NRHM Framework for Implementation emphasizes that, 'special attention would be given to setting up ANM training centres in tribal blocks which are currently para-medically underserved by linking up with higher secondary schools and existing nursing institutions'. There should be one ANM training school per tribal district. Most states can set up ANM schools in district hospitals to start with. For nursing training schools, viable PPP options can be formulated.

5. Multiskilling:

Multi-skilling of Specialist doctors in Obstetrics/Gynecology and Anesthesia to operationalise FRUs is already happening in some states. This strategy has lot of potential but there are issues in terms of the

multi-skilled personnel's retention of skills and gaining confidence to actually practice the skills. Also inconsistent transfer policy has resulted in the programme not showing the expected results. Political will is very important for this strategy to work.

2nd CRM Report states on Maharashtra's health human resource planning- 'Several steps to improve availability of Nurses. Second ANMs provided. MPW Male already there. Shortage of Anaesthetists. Need to rationalize posting of Specialists to ensure service guarantees. Capacity of government nursing schools has been developed. Decentralized appointment on contract. Multi speciality training on priority for nurses posted in tribal and extremist affected pockets. Higher payments in tribal and naxal areas.'

Multi-skilling strategy needs to be extended to paramedics and lab technicians. Rather than having separate lab technicians for vertical TB, malaria etc programmes, same lab technician can take care of all.

BOX-NRHM Framework for Implementation- Innovations Suggested for Tribal Areas:

46.Special attention would be given to setting up ANM training centres in tribal blocks which are currently para-medically underserved by linking up with higher secondary schools and existing nursing institutions.

55. A trained female community health worker - ASHA - is being provided in each village in the ratio of one per 1000 population. For tribal, hilly, desert areas, the norm could be relaxed for one ASHA per habitation depending on the workload.

106. The involvement of non-governmental sector organizations is critical for the success of the NRHM.....Many others provide service guarantees in remote regions specially in the far and distant tribal areas. NRHM would support linkages with the large number of trust and society managed hospitals and dispensaries in remote areas to see how best they could provide service guarantees to the poor.

6. Additional support for medical personnel in tribal areas:

a) Residential facilities for staff:

Provision of residential facilities in health centre premises can help in encouraging doctors, nurses, ANMs and other staff to stay and work in tribal areas. It is a good idea to have the PHC/Sub center near village not in isolation. Priority should be given to tribal areas.

b) Additional payment/incentives for staff in tribal areas:

Some states like Maharashtra have managed to improve human resource availability in tribal areas by offering cash incentives/higher pay for ANMs working in tribal and disturbed areas. Similar incentives can be tried for getting more doctors, nurses and lab technicians in tribal areas.

The Rural Medical Corps Policy of Chhattisgarh is another upcoming innovation.



Chhattisgarh Rural Medical Corps

To overcome the reluctance of doctors and nurses to serve in remote rural and tribal areas, the Government of Chhattisgarh proposes to establish "Chhattisgarh Rural Medical Corps." The recruitment to CRMC will be through two routes, namely: a) Voluntary choice by the doctors who opt for this position in the beginning of their medical education b) Doctors from other states who are willing to join CRMC.

Besides the above-mentioned sources of cadres, the students appearing in the Chhattisgarh PMT can exercise the option if they want to join the CRMC on completion of their course. The Government of Chhattisgarh will meet the full cost of study of those students who do join CRMC on completion of their course and will groom them accordingly. On the other hand, who do not volunteer for joining CRMC at the end of the course will have to bear the full cost of their education and a penalty.

The members of CRMC may be placed in most remote and difficult area; comparatively less remote but difficult area or least remote but difficult area.

An area will qualify for being termed as most, more or least difficult area based on its amount of forest coverage, distance from the district head quarter and capital city, approachability, population, security threats and education facilities.

The perks and payments: The benefits and payments of members of this corps will vary according to the nature of their working areas, which include hardship area allowance, transport facility, educational allowance for children, housing facility in transit hostels, and insurance coverage with different scales in terms of difficulty of area.

Recruitment Policy

CRMC cycle will be proposed for a period of ten years beginning from a posting in remote and difficult area after which they will be gradually shifted to least difficult area.

Career scopes

After ten years of service this cadres will have two options to choose from continuing in the regular government system as before or to opt out of the CRMC system.

Fund for Chhattisgarh Rural Medical Corps

The total cost on this incentive scheme to be charged for the year 2009-10 is Rs.7.77 Crores.

(Chhattisgarh NRHM PIP 2009-10)

7. Opening up of Medical colleges in tribal areas:

More medical colleges need to be set up in tribal regions.

8. Integration of existing infrastructure (convergence of services) with health services:

In remote tribal areas where infrastructure and access is a major problem, there is scope for integration of existing non- health department infrastructure, where people tend to gather, with provision of health services. An example of this is the convergence with ICDS centers during Village Health and Nutrition day. Another example is of RNTCP having their DOTS centres in monasteries in Sikkim or provision of health services at the weekly tribal bazaars (haats) in Chhattisgarh.

9. Mobile medical units:

As we have discussed, in tribal areas the villages and hamlets are dispersed and some areas are not easily reachable. A way of reaching the unreached areas can be by Mobile medical units. They should not be seen as a replacement for a poorly functioning PHC. But the mobile medical unit is a gap filling option till the health facilities of the area are functioning adequately.

There are different ways in which the mobile units can be utilized. They can be used to provide critical curative and diagnostic services in areas from which people find it very difficult to travel to the nearest PHC. They can also provide medical services during weekly bazaars. The mobile unit can be effectively used for emergency responses for instance in the event of an epidemic. They can be utilised for minor operations, malaria check-up, blood tests, and family planning camps for males.

Ideally a mobile medical unit should have two doctors, staff nurse, lab technician and one pharmacist as medical unit and in non-medical unit one supervisor and two drivers. It should contain an examination area, a lab testing area, a drugs dispensing area and a staff vehicle. It should have adequate stock of essential drugs, especially anti-malarias, anti-snake venom and anti-rabies vaccine.

It is of vital importance that people be aware of such an initiative. The date and place of visits by the MMU should be widely advertised and adhered to.

It is critical that availability of doctors and technicians be ensured otherwise they will just become 'white elephants', very expensive with limited or no use.



The Mobile Health Unit was first introduced in 1951 in some tribal areas of India, with the purpose of improving access to and utilization of health services for people living in under-served and inaccessible regions.

What are Mobile Health Units?

MHUs are portable and self-contained vehicles managed by teams that provide medical services. The team members generally consist of a physician, a pharmacist, an auxiliary nurse midwife (ANM), 1-2 paramedical staff, and a driver. MHUs are planned and administered by Primary Health Centres (PHC) and the medical officer of PHC is responsible for ensuring that they function effectively.

MHUs in Tamil Nadu

In Tamil Nadu (TN), MHUs were first introduced in 20 PHCs in 1977 but terminated in the mid 1980s as the concept of MHUs were not considered to be a progressive way of improving access to health. Static health centres were considered a more appropriate model for the provision of primary care. Although substantial increase in the health care infrastructure has been seen over the last 15 years, several parts of the state continue to suffer from a lack of primary care consequently the MHU scheme was revived in 2002.

There were 62 MHUs functioning under different departments of the state government, of which 42 were dysfunctional. A study was done taking sample of MHUs in various geographical and socio-economic settings. The community surveys show that more than 80% of the served population had used MHUs during the past 3 months in Tamil Nadu and overall satisfaction with respect to skill and competence of the MHU-team was high. The study concluded that the MHU served the healthcare needs of the poorer and inaccessible sections of the society especially by reducing the barriers to access in under served areas. The study did not explicitly mention the quality of care of the MHU. Information on the quality of care can be culled out from the amount of time spent by MHUs on various sites, the periodicity of the visit and the patient load. The survey found that a MHUs covers about 40 to 60 patients per visit over a period of two to three hours and the time spent on care, per patient, amounts to less than 3 minutes. The survey showed that, in several sites, MHUs report only once a fortnight or a month with no effective patients follow-up.

MHUs in Orissa

MHUs became the most important component of the Long Term Action Plan of Orissa in 1995, providing health care services to its tribal population. Under the Revised Long Term Action Plan, substantial budgetary increases were made for drug, fuel and remuneration to the staff of MHUs. Currently, Orissa has 91 MHUs deployed in the eight least developed districts - all in the southern part of the state. The study took samples of MHUs from Tribal and Non Tribal districts and from each district, one relatively

well and another not-so-well performing MHU were selected. It was seen that the policy intention and rationale statement for MHUs were clear i.e. to serve the people living in inaccessible and remote areas, ensuring that they receive health services at their doorsteps. The policy statement has well thought out the personnel for the MHU consisting of a medical doctor, a pharmacist, a health worker, a driver and an attendant. The responsibility is also clearly stated in the policy documents as - "a Medical Officer with MHUs is expected to "plan" conduct of health camps in assigned villages, create awareness of health programmes amongst villagers and control diarrhoeal diseases, as well as monitoring the overall functioning of MHU staff members. The Medical Officer is also responsible for the maintenance of the mobile vehicle and for the report on the progress of work." The Revised Long Term Action Plan allocated a sum of Rs.50 million against 90 MHUs in eight districts for the year 2005-06. Such a declaration of an overall budget gives a clear signal to the programme implementers of the extent to which they can scale up coverage and, thereby, the size of the population they can cater to. Thus a clear overall state-level budgetary commitment for MHUs exists in Orissa which will in turn enable district level officials to implement the policy.

The MHU is seen to largely serve the interest of the socio economically weaker section in under served areas and the people accessing the MHU had to travel less than a kilometer to access it. However the MHU is not free of the difficulties that plague the static health facilities. Several areas still remain inaccessible due to bad roads or approach roads in many tribal settlements getting cut off during the rainy season. The condition of roads in the tribal regions of Orissa is usually worse. In some regions with hilly terrain, members of the MHUs have to walk up to 3 or 4 km to reach the villages and these conditions reduced the frequency of their visits. However it still can be stated that the geographical barriers to access has been considerably reduced in some pockets.

The MHUs's monitoring and feedback mechanism being weak there is neither follow up of MHUs, nor any follow up action based on site visits and reported performance. The monthly reviews meetings held in Orissa are rarely attended by community leaders, such as "sarpanch"and, therefore, their feedback has been rarely obtained. Despite such issues the HouseHold Surveys shows that the community members were "satisfied" with the performance of the MHUs.

Factors that contribute to the poor performance of MHUs were seen to be similar to that which affects a static health centre for instance - slow process of recruitment of health personnel, lack of financial commitment from the government, lack of integration etc. however, they are a good short term measure to improve access to basic services in difficult areas while medium term plans to improve static health services in these areas are being made and implemented. Greater involvement of NGOs and CBOs in the working of MHU and detailed well publicised scheduling of MHUs would help the entire programme. Well worked out follow up facilities and a commitment to follow up the schedule are also critical gaps that needs to be filled.

A case study of Mobile Health Units in Tamil Nadu and Orissa



10. Investing in the Referral transport system:

It is critical to improve the referral transport in tribal areas. One example of provision of referral transport free of cost is in Guna district of Madhya Pradesh. VHSCs in tribal areas can also be encouraged to fund emergency referral transport expenses of the very poor households.

Model of Free Emergency Transport, Guna, Madhya Pradesh-

- Ambulance of Government are kept at strategic locations
- Mobile phones have been provided to drivers
- 24x7 toll free Call center at the CHC
- Training has been given to the drivers
- Fuel cost of ambulances is taken from JSY, hence ambulance service is free to the beneficiaries

11. AYUSH:

AYUSH can be a viable strategy for supplementing the allopathy based system in tribal areas. Tribal areas have better availability and knowledge base of herbal medicines and can play an important role in preserving it for other areas too. One example of promoting AYUSH through community health workers can be seen in Chhattisgarh where all mitanins (ASHA) have been trained on herbal medicines and been encouraged to use herbal remedies in conjunction with standard treatment guidelines.

12. Public Private Partnerships (PPP):

For promoting training of ANMs and Nurses, PPPs can help. West Bengal has a good example of such PPPs. But PPPs for actually providing critical healthcare services in many of the tribal areas are more difficult to operationalise. The main reason being that the private sector is also often absent in most remote areas. Places where government doctors do not want to get posted at, most often also don't have any qualified private practitioner. Both set of doctors have the same set of reasons for being unwilling to work in a remote place.

Innovations in Jharkhand

1) Village Health Center at the Anganwadi Centre

1. Routine health activities.
2. Group Meetings.
3. IEC.
4. Referring cases to sub- center/ PHC.

2) District RCH committee to have a Tribal sub committee chaired by tribal leader.

Source : Tribal Health PIP 2009-10

13. Communitisation

As discussed earlier, involving tribal communities in the health system is necessary in order to overcome the feeling of alienation tribal communities feel with respect to modern medicine. NRHM has opened possibilities for this kind of engagement. ASHA, VHSCs and RKS are ways in which tribals can find a place in health planning. Hence special attention needs to be given to ensure proper representation of STs in these forums and making them functional. Tribals already have a system of tribe panchayats and gram sabhas. These can also be approached to strengthen the community processes.

14. Utilising Untied Funds for tribals

NRHM has introduced untied funds from the village to the facility level. These funds need to be utilized in the spirit of addressing problems of vulnerable communities like the tribals.

15. Convergence with other departments and programmes for tribal development (Refer to Lesson 7)

As we have seen in the previous lessons, there are also a number of socio-economic and political determinants affecting health of tribal people. The DHAP has to plan for convergence efforts with other departments like PHED, WCD, Tribal Welfare etc. Also, there are various tribal welfare schemes and programmes whose funds can be utilized for health planning.

**Review Questions:**

1. How is health status of tribals worse off than non-tribals? Validate your answer with data.
2. What are the major gaps in health delivery in tribal areas?
3. What are the major strategies to address the lack of access to health facilities?

Application Question:

1. People from 20 villages around Kanjipani in Banspal block converge there every Sunday for weekly market/haat. These 20 villages are spread over large area and have total of 60 small habitations with less than 25 households each. Most of the habitations are over 5-20kms away from main road. The nearest PHC is at Suakati which is 20kms from Kanjipani. There are 10 Anganwadis for 20 villages.

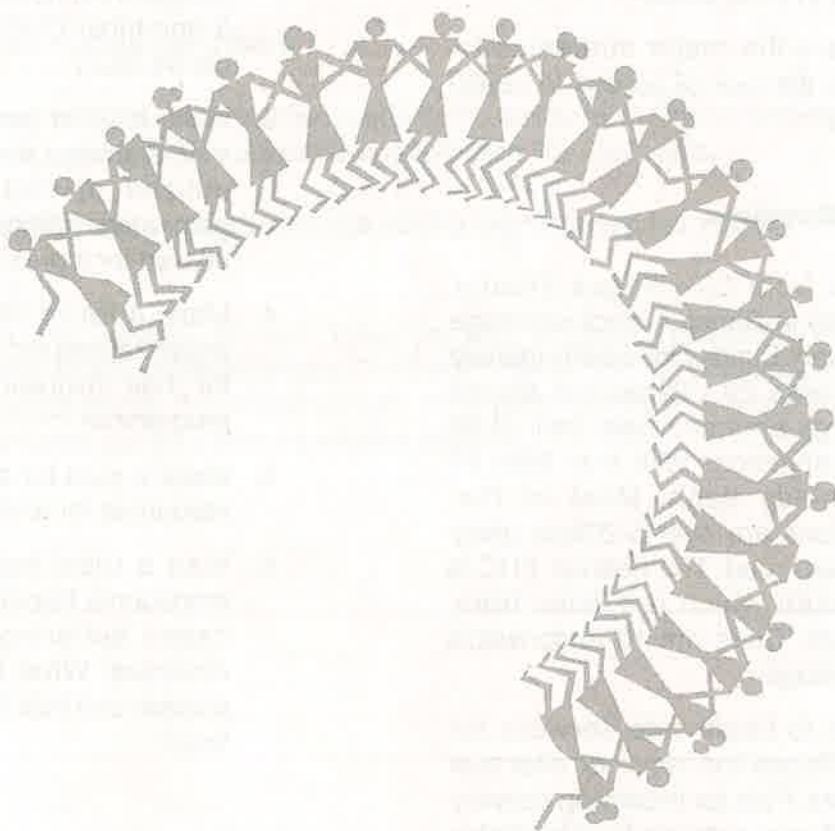
Access to healthcare services for these villages has remained poor over the years. Plan for improving delivery of healthcare services for this cluster.

2. What are some of the strategies for retaining human resource in tribal areas. Read up on what different States have tried.

Project Work:

1. Create a logframe for improving Institutional Deliveries in tribal areas.
2. Conduct a facility survey to compare services in a tribal versus a non-tribal CHC, PHC and sub-centre each
3. Make a list of purposes for which VHSC untied funds have been utilized in your area? What percentage of the money has been utilised for tribals?
4. Make a list of tribal panchayats, organizations etc and make a plan for their involvement in a health programme
5. Make a plan for allocating human resources for a tribal block.
6. Visit a tribal habitation during monsoons. Record the number of cases suffering from various illnesses. What can be done to prevent and treat these illnesses in time?

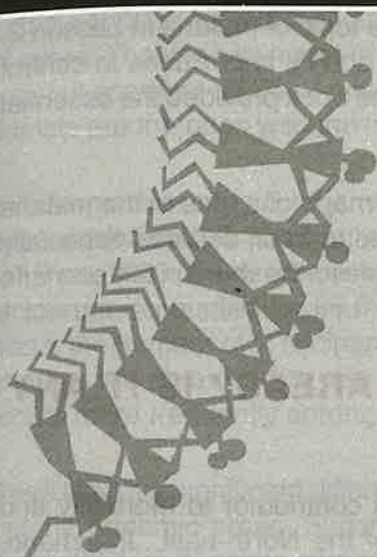
NOTES





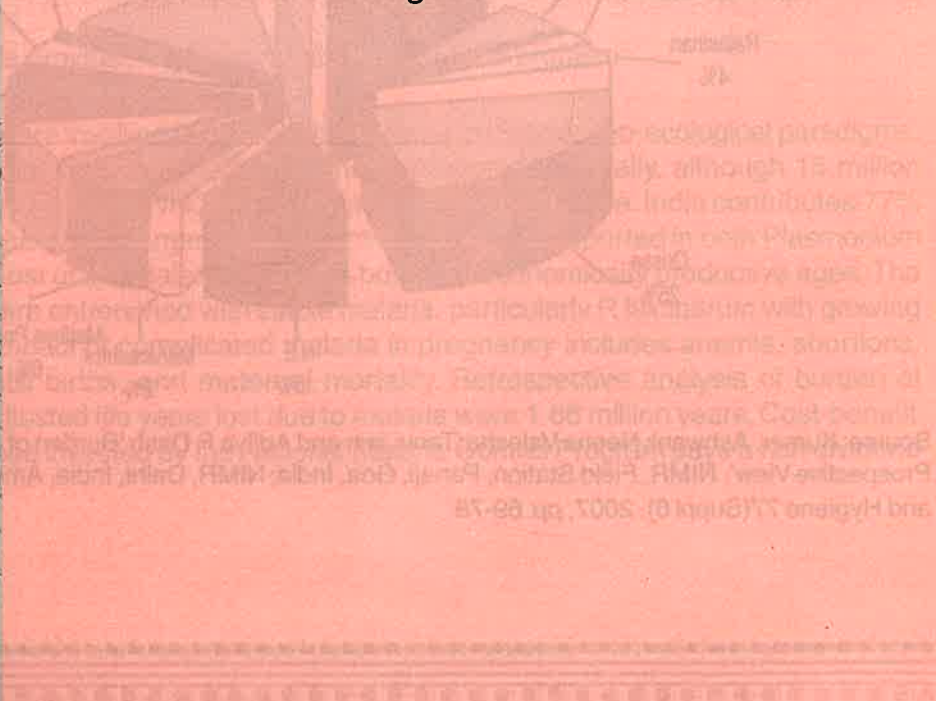
Lesson FIVE

Malaria In Tribal Areas



In this lesson we shall discuss:

- The burden of malaria in tribal areas
- The reasons for higher disease burden in tribal areas
- Certain critical issues in malaria like Falciparum malaria, malaria in pregnancy, drug resistance and emerging issues in malaria treatment, malaria diagnosis and reporting in the tribal context
- Revision of strategies in the tribal context



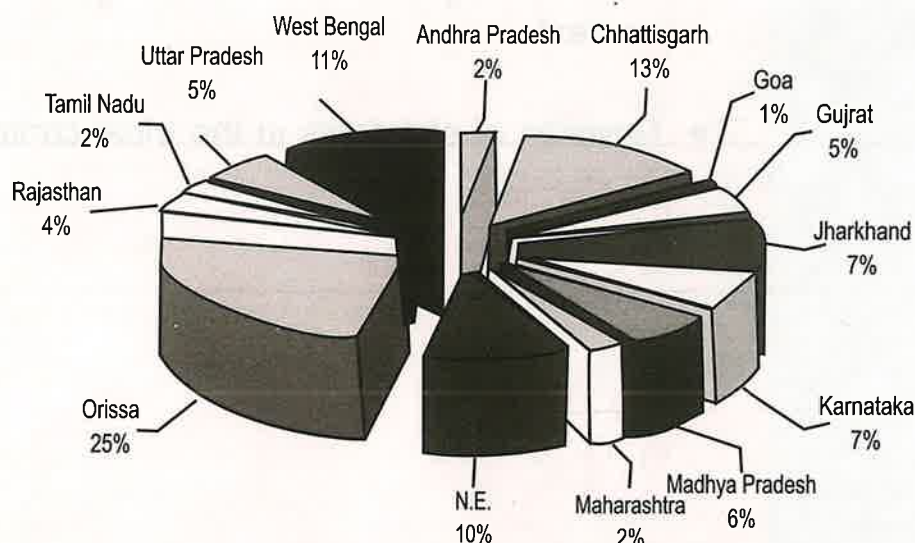
INTRODUCTION

In the PHRN course, Book 8 'Disease Control Programmes' introduces the topic of malaria in Lesson 2. The lesson covered two important aspects in detail: a) Vector dynamics and its importance in control strategies b) Malaria surveillance and Indicators. Then Lesson 3 of the same book provided the essential inputs for planning for Malaria Control at the district level.

In this lesson we will aim to understand malaria in the tribal context. Also, major changes in the malaria drug policy have occurred over the last two years. These changes have led to fresh debates especially on diagnosis and treatment strategy for malaria. This lesson also aims to describe the current scenario with respect to this.

WHAT IS THE BURDEN OF MALARIA IN TRIBAL AREAS? IS IT ANY DIFFERENT FROM NON-TRIBAL AREAS?

Malaria is a huge public health problem in tribal areas where it is a big contributor to morbidity and mortality. The states of Orissa, Chhattisgarh, West Bengal, the states of the North-east, Jharkhand, Karnataka and Madhya Pradesh, contribute the most to the burden of malarial disease. Most of the mortality due to malaria is reported in forested tribal areas like Orissa, Chhattisgarh, Assam and Maharashtra. It is no coincidence that the above states have the highest ST percentages.



Source: Kumar, Ashwani; Neena Valecha; Tanu Jain and Aditya P. Dash 'Burden of Malaria in India: Retrospective and Prospective View', NIMR, Field Station, Panaji, Goa, India; NIMR, Delhi, India, American Journal of Tropical Medicine and Hygiene 77(Suppl 6), 2007, pp. 69-78



If one looks within the states one finds that tribal dominated blocks or districts are facing a disproportionately high share of the malaria burden. For example, in Madhya Pradesh, the endemic districts contain 19% of the total state population but have 53% of total malaria cases and 71.5% of total Pf cases. The case is worse in Chhattisgarh where 41% of the population are living in malaria endemic area but contribute 91% of malaria cases, 96% Pf cases and 91% of deaths due to malaria. These eight districts are the ones with the highest tribal populations and forested areas. (Singh,____)

Malaria morbidity in 13 tribal villages in forest and plains was studied by National Institute of Malarial Research (NIMR) in Sundargarh district of Orissa in 2001. The study found that malaria morbidity was 347.9 per 1000 population per year in the forest villages as against 61.9 per 1000 in the plains. Plasmodium falciparum accounted for 85.0% of the total malaria cases during the study period. In forest and plain areas, the number of P. falciparum cases per 1000 population per year was 284.1 and 31.2, respectively, whereas the parasite rate was 14.0% and 1.7%, respectively. The study also found that clinical malaria occurs more frequently among children between 0-5 years. (Sharma, 2004)

There is also a significant difference in the nature of malaria burden in tribal areas. Tribal areas are mostly malaria endemic areas. Secondly, the proportion of severe malaria in this burden is extremely high. Nearly 90% of Pf cases comes from tribal communities.

Secondly, malaria has huge implications for the tribal economy and the well-being of these communities. Malaria related expenditure puts further pressure on the already economically weak tribal families. Families have to take debts, sell land or livestock in order to pay for malaria treatment in spite of which many a time the effort ends in death of the patient. There is a saying amongst tribals in northern Chhattisgarh- ***"whatever we earn gathering mahua, we lose to ulti dast (gastroenteritis) and whatever we earn in gathering tendu pattas, we lose to malaria"***.

The following situational analysis provides a glimpse of the scale of the problem:

'In India, nine Anopheline vectors are involved in transmitting malaria in diverse geo-ecological paradigms. About 2 million confirmed malaria cases and 1,000 deaths are reported annually, although 15 million cases and 20,000 deaths are estimated by WHO South East Asia Regional Office. India contributes 77% of the total malaria in Southeast Asia. Multi-organ involvement/dysfunction is reported in both Plasmodium falciparum and P. vivax cases. Most of the malaria burden is borne by economically productive ages. The states inhabited by ethnic tribes are entrenched with stable malaria, particularly P. falciparum with growing drug resistance. The profound impact of complicated malaria in pregnancy includes anemia, abortions, low birth weight in neonates, still births, and maternal mortality. Retrospective analysis of burden of malaria showed that disability adjusted life years lost due to malaria were 1.86 million years. Cost-benefit analysis suggests that each Rupee invested by the National Malaria Control Program pays a rich dividend of 19.7 Rupees.'

This above highlights the fact that it is highly beneficial for Governments to make investments in combating malaria.

WHAT ARE THE FACTORS FOR HIGHER DISEASE BURDEN IN TRIBAL AREAS?

1. Environment - Tribal areas are hilly forested areas with an abundance of water bodies like rivulets, streams. These provide fertile ground for breeding of mosquitoes.

- a) Round the year presence of vectors- In the endemic areas, vectors are present all the year round. Eg. in Chhattisgarh, *Anopheles Culicifacies* is present all through the year, even in the plains. But what adds to the problem in the forest and hilly areas is the presence of *Anopheles Fluvialis*.
- b) More breeding sources- The hilly terrain along with high rainfall ensures the presence of rivulets, streams and springs. Their rocky river-bed, rock pools provides conducive breeding place for the vectors.
- c) Vector human contact is higher- The vector human contact is high due to the socio economic and cultural conditions of the tribals. Due to occupational reasons, extra domiciliary transmission becomes prominent. Activities like hunting at night, guarding crops from wild animals in small plots close to forests, fishing, forest produce collection etc are common in tribal cultures and they expose the tribal people to vectors. The poor economic conditions also cause risk such as lack of suitable clothes to cover entire bodies. It is also a common practice to sleep outdoors in tribal areas as they lack enough indoor space and amenities like fans etc.
- d) Low effectiveness of indoor residual spray on tribal houses: Mud plastering of walls makes the insecticide spray less effective.

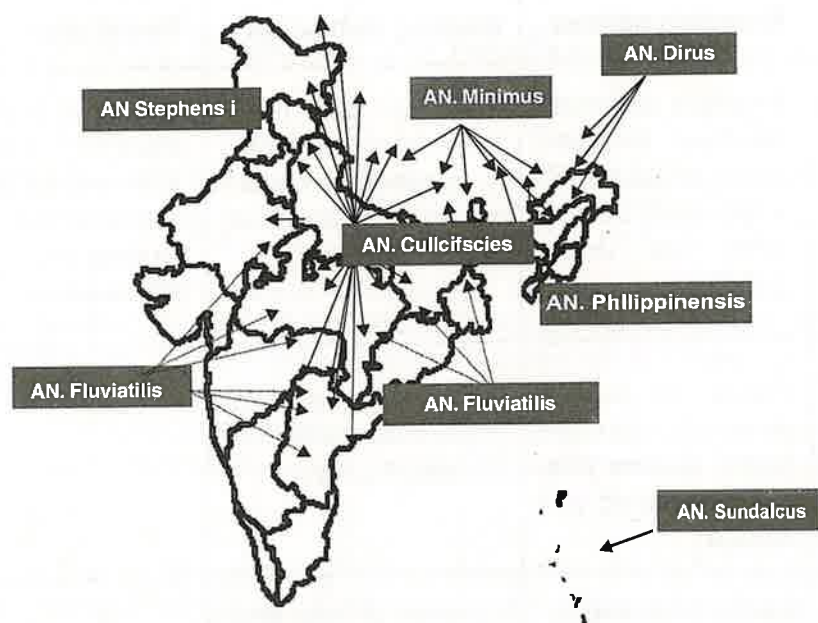


The following table illustrates the complexities of vector behaviour in forest areas:

Vector	Breeding spaces	Resting Behaviour	Resistance	State
An. culicifacies	Irrigation channels, swamps, riverbed pools, tanks, freshly excavated burrow pits, rice fields, ponds	Zoophilic but bites man more frequently in absence of cattle. Mainly endophilic but some exophilic	Resistant to DDT and HCH all over India and to Malathion in Gujarat and Maharashtra	
An. dirus	Pools of jungle streams, disused wells, burrow pits, drains covered with foliage	Jungle/wild mosquito High man-mosquito contact in jungle		NE
An. fluviatilis	Heavy breeding in very slow running streams, seepage channels of dams and irrigation channels, rock pools	Species of hills and foothills Rest indoors and houses rather than cattle shed.		Deciduous forests of plains and hills
An. minimus	Streams in deep jungles, foothills and forest fringes			Had disappeared due to DDT but returned in NE states
An. sondaicus	Coastal areas, brackish salt water, swampy pits, marshy low lying areas			Andaman and Nicobar

Source: Sharma and Kondrashin, 'Forest Malaria in Southeast Asia, Proceedings of an Informal Consultative Meeting WHO/MRC', 18-22 Feb 1991

PRINCIPAL VECTORS OF MALARIA



Source: Sharma and Kondrashin, 'Forest Malaria in Southeast Asia, Proceedings of an Informal Consultative Meeting WHO/MRC', 18-22 Feb 1991

2. Malnutrition- As elaborated in the lesson on nutrition, malnutrition levels are very high amongst tribal communities. As a result, they have higher susceptibility to the disease. Recovery takes longer leading to greater chance of transmission.

3. Poor access to health services- As discussed in the lesson on access, the public health system is unable to provide adequate and quality services in tribal areas. As a result there is more dependence on bogus medical practitioners/quacks and traditional faith healers. This has severe consequences in terms of incomplete dosage and delays in diagnosis and treatment leading to more cases of severe and complicated malaria.

4. Development projects and deforestation- Tribal areas are rich in natural resources. Hence they have to bear the onslaught of development projects. Numerous studies have shown an increase in malaria in areas where such projects have been implemented. Deforestation has led to an increase in malaria and change in vector behaviour.

A study on impact of the Bargi dam on malaria shows that 'until recently, cases of malaria were relatively rare in Narayanganj. ... an epidemic of malaria in late 1996 claimed hundreds of lives in the area and the



outbreak spread, during 1997, to new villages in the region....the slide positivity rate (SPR) for Narayanganj increased >7.45-fold between 1979 and 1997 but also that the slide falciparum rate (SFR) increased >32-fold over the same period'. (Malaria and the Narmada-river development in India: a case study of the Bargi dam, N. Singh, R. K. Mehra, V. P. Sharma. Ann.Trop Med. Parasitol 1999) (Refer to page 47 and 48 of Book 8 for definition of the Malaria Surveillance Indicators SPR and SFR)

CRITICAL ISSUES IN MALARIA IN TRIBAL AREAS: EXISTING GAPS AND POSSIBLE STRATEGIES

1. Falciparum malaria and severe and complicated malaria

Pf% is higher in these areas. This along with unavailability of services for diagnosis and treatment means high malaria related mortality. In such areas of stable malaria and high Pf%, due to poor access, poverty etc, diagnosis and treatment gets delayed. As a result there are large numbers of cases of severe and complicated malaria. But our public health system in these areas is not able to respond properly and as a result there is high mortality. Severe malaria has 40-45% mortality. 80% of the patients who eventually die of malaria are never reached by the health system.

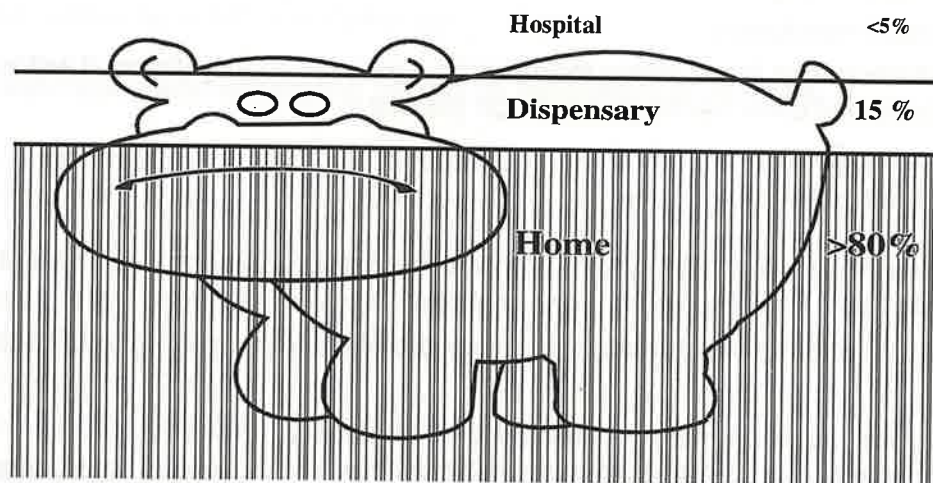


FIGURE 6 "The Ears of the Hippopotamus" where malaria patients are managed and die

'Most febrile persons do not come to the attention of the formal health infrastructure. The "ears of the hippopotamus" represent the fewer than 20% of patients who have any contact with the formal health delivery service when they become ill and die (Figure 6).'⁴

⁴The Ears of the Hippopotamus: Manifestations, Determinants, and Estimates of the Malaria Burden, Breman JG., Am J Trop Med Hyg 2001

In the case of severe malaria, it is important to remember that-

- Falciparum malaria is a primary health care issue, with complications, which develop rapidly and may demand the highest form of tertiary care.
- Severe malaria is a medical emergency, and EDPT (Early Diagnosis and Prompt Treatment) even outside the hospital setting can be life saving.
- Severe malaria is often a multi-system disorder involving multi-organ failure.
- Antimalarial treatment is essential but not sufficient and patients can die of complications.

The essential requirements for management of severe malaria are as follows:

- A person trained in nursing serious/ comatose cases.
- Antimalarials which can be given parenterally: Artesunate, arte-ether, arte-mether or Quinine.
- Supportive treatment: Antipyretics, anticonvulsants, diuretics, antibiotics, Saline/dextrose for intravenous transfusion.
- Intravenous infusion equipment.
- Facilities for blood transfusion.
- Well equipped laboratory: Blood smear examination & parasite count with result within one hour, routine examination of urine, haemoglobin, blood glucose.
- Oxygen respirator, Oxygen.

(Operational manual NVBDCP)

In the Indian Public Health Standards CHC level: Draft guidelines, the provisions for treatment of severe malaria have been listed as-

- CHCs are the first referral units for treatment of severe and complicated malaria cases.
- Standards:
 - "g. He will provide referral services to severe cases of malaria.
 - h. He will refer severe and complicated cases to District Hospital in case of emergency and drug failure."

Hence we can broadly say that CHCs can manage significant proportion of severe malaria cases provided the following quality services are ensured-

- 24x7 services.
- Upgraded diagnostic services.
- Provision of safe blood at CHC.



But as it stands, many of the CHCs in tribal areas are not equipped for fulfilling the above norms and as a result cases of severe and complicated malaria are not adequately dealt with. The commonly found gaps in the current public health system with respect to malaria are:

- At the village level: Lack of adequate access to health workers, diagnostic aids and essential drugs.
- Access to 24x7 services, basic investigations and safe blood at peripheral levels (PHC, CHC) are major concerns.
- Access to basic investigations on an emergency basis continues to be of concern even at the District Hospital and Medical College Hospital levels.
- Access to tertiary care in the context of Falciparum malaria viz. Hemodialysis, Ventilation is rare in the Indian health system.
- Availability of public transport in rural areas, and provision of ambulance services from PHCs/CHCs is a sorely felt need.

Thus public health systems need significant inputs to tackle complicated malaria. Another way of looking at this is that strengthening the gaps in care of malaria patients would revitalise the public health system and improve outcomes of millions of other patients.

2. Drug resistance and emerging issues in treatment of malaria

In recent years, Chloroquine (CQ) resistance in Pf malaria is increasing in some high endemic PHCs/districts in the country. This forms the basis of the new National Drug Policy on Malaria (2008). As per this policy:

- Presumptive treatment abolished with emphasis on diagnosis of fever cases and ensuring full treatment.
- P. Falciparum Cases:
 - CQ recommended in low endemic areas
 - ACT (Artemisin-based combination therapy - Artesunate (AS) + Sulpha Pyrimethamine (SP)) is recommended in CQ resistant areas. For this, clusters of Blocks surrounding resistant foci have been identified. Also, high Pf predominant districts of North Eastern states, West Bengal, Madhya Pradesh, Chhattisgarh, Orissa, Andhra Pradesh and Jharkhand have been identified. Thus,
- Pv cases to be treated with CQ in full therapeutic dose & PQ (Primaquine) to be given for 14 days.
- Treatment Failure Rate cut off has been set at 10 % for change of drug regime.
- All severe malaria cases to be treated with parental anti-malarials like arte-ether or Quinine injections.

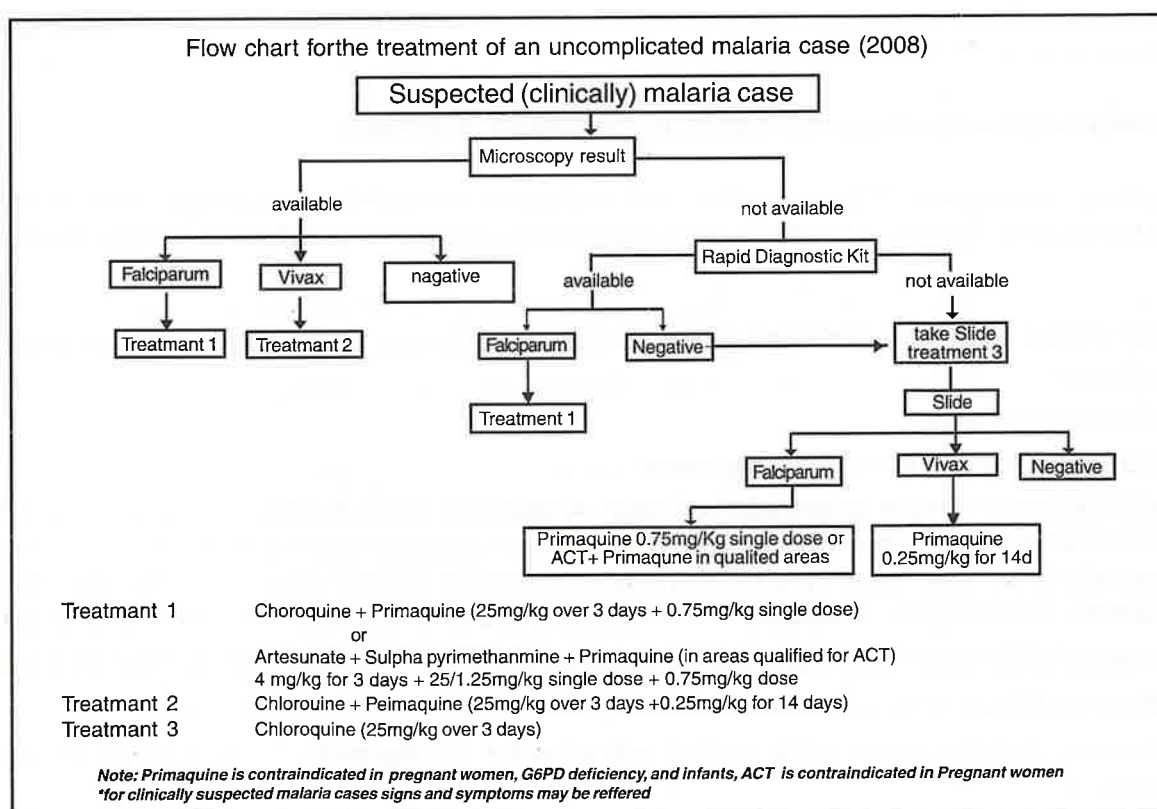
- Chemoprophylaxis to be administered only in selective groups i.e. for travellers going to high Pf endemic areas. For short term stay, Doxycycline should be given and for long term stay, Mefloquine is recommended for prophylaxis.

Districts which have been selected for treatment of Pf with ACT combination include 50 high endemic districts of Andhra Pradesh, Chhattisgarh, Jharkhand, Madhya Pradesh and Orissa, 67 districts of NE states and 252 PHCs in 45 districts spread over 11 states. Not surprisingly, most of these are tribal areas.

However, as malaria has a local and focal epidemiology, resistance to Chloroquine is also local and focal.

The Malaria drug policy further recommends that Chloroquine and Artemisin-based combination therapy (ACT) be available at the hamlet level in FTDs (Fever Treatment Depots). This provision attains great significance in tribal areas where access is a major issue and most times patients are not able to go beyond the village level. Adequate and regular provision of these drugs at the village level can significantly reduce malarial morbidity and mortality.

The National Malaria Drug Policy 2008 recommends the following flow chart for uncomplicated malaria case.





ACT has shown clear advantage in terms of achieving quick response in Pf malaria. But the new drug regime has serious problems too. The significant issues with regards to this new regime are as follows-

- Within districts there could be many areas retaining Chloroquine sensitivity. But in the current Policy, in most cases full districts have been marked for implementing the new drug policy regardless of whether there are Chloroquine sensitive areas. Chloroquine must therefore always be available. If ACT is not available due to some logistics issues, Chloroquine must be tried.
- The ACT combination that has been selected for use in India i.e. Artesunate and Sulphadoxine-Pyrimethamine is also likely to have limitations. There are concerns amongst Public Health experts that in selection financial considerations were given more weightage than required. The choice would have been different if only therapeutic efficacy had been considered.
- One implication has been that it is no longer considered necessary to have studies on Chloroquine resistance. This has to be reviewed as the change in drug should be made only in areas showing Chloroquine resistance. There need to be ongoing studies assessing the sensitivity to both Chloroquine and ACT.
- ACT is a much more expensive drug than Chloroquine. Studies have shown that in other countries less than 10% of the people are able to access ACT due to poor supply and poor reach of the health system. This can also become true for our states if we don't plan the procurement and logistics properly. Given the fact that this is a very weak area in our health systems, there is every cause for concern.
- ACT has a short shelf life and Artesunate and S-P have different expiry periods. RDK kits also have a short 18 month shelf life. Thus if there is a delay in delivery most of the shelf life would be lost and the kits and drugs would expire soon after. Hence it would be a logistical challenge.
- It will be a challenge to ensure free and adequate supply of RDTs, ACT and Chloroquine.
- ACT is effective only if the three day dose is given. With ACT being given widely, there is possibility of giving sub therapeutic dose of ACT. Since there are more number of tablets, therefore ensuring dosage compliance is more difficult.
- There is possibility of sulpha reaction in some cases.
- It is essential to regulate the private sector and ban mono artemisinin compounds. If artemisinin alone is given, resistance develops very fast to it.
- Resistance to ACT has been documented in certain countries like Thailand and Burma. The biggest danger is that ACT being the last line of drugs, its inappropriate use may result in development of resistance to it. This will be disastrous as no other remedy is available to overcome if such a situation occurs.
- Currently, there are no blister packs for children.

Another issue of current importance is regarding how to manage the transition from the current drug regime to the new one. The availability of the new drugs at various levels especially at the village level has severe gaps at the moment.

Experience of different countries has shown that efficacious drugs lose their sensitivity in poor health systems in poorly running health systems. Hence if the public health system does not improve in the tribal areas, even the new regime of drugs will lose their sensitivity. The public health system needs to regularly monitor sensitivity to Chloroquine and now ACT so that where resistance is documented there is immediate replacement by effective drugs.

3. Issues in tackling Malaria in Pregnancy

A pregnant woman is more vulnerable to malaria with higher chances of having severe infection and complications. In high transmission areas with stable malaria, one finds maternal anemia sometimes causing maternal as well as neo-natal deaths and low birth weight and its effects. In low or medium transmission areas with unstable malaria, the effects of this disease are more severe for the pregnant women resulting in more maternal deaths.

Hence in tribal areas, malaria in pregnancy results in low birth weight and maternal anemia and it can also lead to stillbirth, spontaneous abortion and maternal death.

A number of studies have been done amongst tribal populations to measure the burden of malaria in pregnancy and its adverse impact. The following table gives the result at a glance-

Region	Malaria % in ANC	Malaria % in DU	Inpatient	Association with anemia	Response of public health system
*Rajnandgaon Chhattisgarh	0.07%	2.9	0	86% of parasitemic cases reported severe or moderate anemia	Chloroquine stocked, RDTs not used regularly. Chemoprophylaxis and ITNs rarely used
*Bastar CG	2.8% with 82.4% Pf	3.8	32.35%-100% Pf		
**Jharkhand	1.8% with 62.8% Pf			Malaria significantly associated with severe anemia	Chloroquine stocked, but consistency of stock varied especially at rural sites.



					Chemoprophylaxis rare and no ITNs distributed or recommended by ANM
--	--	--	--	--	---

Source : *'Burden of malaria in pregnancy (MiP) in Chhattisgarh State, India', Presented at International Symposium on Tribal Health: 27 Feb to 1 Mar 2009, RMRCT (ICMR) Jabalpur.

**Hamer Davidson H. et al, 'Burden of malaria and use of malaria control measures in pregnant women in Jharkhand state, India' Presented at International Symposium on Tribal Health: 27 Feb to 1 Mar 2009, RMRCT (ICMR) Jabalpur.

Estimating the burden of malaria in pregnancy: a case study from rural Madhya Pradesh, India *

Results: Estimates of Malaria in pregnancy cases in rural Madhya Pradesh found in the literature ranged from 183,000-1.5 million per year, with 73,000-629,000 lost fetuses and 1,500-12,600 maternal deaths attributable to malaria. The Monte Carlo simulation gave a more plausible estimate of 220,000 malaria in pregnancy cases per year (range 136,000-305,000), 95,800 lost fetuses (range 56,800-147,600) and 1,000 maternal deaths (650-1,600).

Tribal women living in forested areas bore 70% of the burden of malaria in pregnancy in Madhya Pradesh, while constituting 18% of the population.

* Includes Chhattisgarh

Other studies showing the severe burden of Malaria in pregnancy -

- A study in Chhattisgarh by NIMR in Odgi block of Sarguja found 6% asymptomatic malaria infection in pregnant women.
- A study undertaken in the tribal dominated districts of West Singhbhum and Saraikela-Kharswan in Jharkhand and Keonjhar in Orissa, has estimated that 23% of all maternal deaths are due to malaria.
- An analysis of the OPD patients at Jan Swasthya Sahayog, a charitable hospital in tribal area of Chhattisgarh shows that out of 78 patients admitted with severe malaria, 20% are pregnant women (though they are only 3% of the population).
- In order to manage pregnancy with malaria, as with severe and complicated malaria, blood banks are essential along with 24x7 specialized gynecological services, but these services are not

readily available in the tribal areas. As noted in previous lessons, the shortfall of gynecologists in tribal areas is as high as 81%. As a result there are adverse outcomes.

Strategies for Malaria in pregnancy

a) Treatment

Treatment of Malaria in pregnancy poses real challenges. Primaquine as well as Tetracyclines are contraindicated in pregnant women. Even ACT based treatment has risks. The National Malaria drug Policy (2008) states that primaquine as well as ACT are contraindicated in pregnancy. However the WHO guidelines consider ACT as a possible option in certain situations. Chloroquine and Sulfadoxine-Pyrimethamine are considered to be safe in pregnancy but are of limited use in high Pf areas. Both these drugs are also facing resistance problem in widespread areas. Both the National policy as well as the WHO guidelines agree that Quinine and Clindamycin are safe and effective drugs for malaria in pregnancy.. But these also suffer from practical limitations. The Quinine course of treatment is very lengthy. It can be best administered in a facility setting.

WHO guidelines Pregnant women

Pregnant women with symptomatic acute malaria are a high-risk group, and must receive effective antimalarials. Malaria in pregnancy is associated with low birth weight, increased anaemia and, in low-transmission areas, an increased risk of severe malaria. In high-transmission settings, despite the adverse effects on fetal growth, malaria is usually asymptomatic in pregnancy. There is insufficient information on the safety and efficacy of most antimalarials in pregnancy, particularly for exposure in the first trimester, and so treatment recommendations are different to those for non-pregnant adults. Organogenesis Occurs mainly in the first trimester and this is therefore the time of greatest concern for potential teratogenicity, although nervous system development continues throughout pregnancy. The antimalarials considered safe in the first trimester of pregnancy are Quinine, Chloroquine, Proguanil, Pyrimethamine and Sulfadoxine-pyrimethamine. Of these, Quinine remains the most effective and can be used in all trimesters of pregnancy including the first trimester. In reality women often do not declare their pregnancies in the first trimester and so, early pregnancies will often be exposed inadvertently to the available firstline treatment. Inadvertent exposure to antimalarials is not an indication for termination of the pregnancy.

There is increasing experience with Artemisinin derivatives in the second and third trimesters (over 1000 documented pregnancies). There have been no adverse effects on the mother or fetus. The current assessment of benefits compared with potential risks suggests that the Artemisinin derivatives



should be used to treat uncomplicated falciparum malaria in the second and third trimesters of pregnancy, but should not be used in the first trimester until more information becomes available. The choice of combination partner is difficult.

Mefloquine has been associated with an increased risk of stillbirth in large observational studies in some countries. Amodiaquine, Chlorproguanil-dapsone, Halofantrine, Lumefantrine and Piperaquine have not been evaluated sufficiently to permit positive recommendations. Sulfadoxine-pyrimethamine is safe but may be ineffective in many areas because of increasing resistance. Clindamycin is also safe, but both medicines (Clindamycin and the Artemisinin partner) must be given for 7 days. Primaquine and Tetracyclines should not be used in pregnancy.

Despite these many uncertainties, effective treatment must not be delayed in pregnant women. Given the disadvantages of Quinine, i.e. the long course of treatment, and the increased risk of hypoglycaemia in the second and third trimesters, ACTs are considered suitable alternatives for these trimesters. In practice, if first-line treatment with an artemisinin combination is all that is immediately available to treat in the first trimester of pregnancy pregnant women who have symptomatic malaria, then this should be given. Pharmacovigilance programmes to document the outcome of pregnancies where there has been exposure to ACTs, and if possible documentation of the development of the infant, are encouraged so that future recommendations can stand on a firmer footing.

The poor availability of Quinine poses a further difficulty in this already complex problem. As mentioned previously, Malaria in pregnancy frequently results in severe malaria with anemia hence both conditions are required to be treated simultaneously along with the risks of pregnancy. Currently our hospitals are not equipped to handle this. This was also commented on in the In-depth review on Malaria for National Vector Borne Disease Control Programme 2006-

In-depth review on Malaria for National Vector Borne Disease Control Programme 2006-07, National Institute of Malaria Research, ICMR, National Vector Borne Disease Control Programme (New Delhi) states that-

- No Sub Centers had Quinine and less than 10% of PHCs had it.
- About 30% PHCs and 4% SC had distributed nets in past 12 months.
- 5% PHCs and 0% SC had insecticide to treat nets.
- Net use is less than 30% except in Assam.
- It takes several years for policy change to be implemented to practice on the ground

But this situation has to change in order to give a fair chance to the pregnant woman and her unborn child a fair chance for survival. Making quinine available at the PHCs and CHCs and training so that it can be administered when needed, should become a priority.

b) Prevention through Chemoprophylaxis

Previously, Chloroquine Prophylaxis was part of the National drug policy though its implementation was poor. Some states which had implemented it had found positive results in the strategy. For example, a study on the impact of CQ prophylaxis in Nayagarh district of Orissa by RMRC (ICMR) 2006-08 showed the following results-

Impact	Chloroquine Non- Compliant	Chloroquine Compliant
Incidence of malaria	23%	10.6%
LBW % Placental Blood smear test		4times lower
(Out of 123 samples, 20 were positive for Pf)	60%	40%

CQ resistant was equally distributed among both compliant and non-compliant

Chloroquine resistant was equally distributed among both compliant and non-compliant

Malaria in pregnancy being a leading cause of maternal mortality, a clear preventive strategy is required. This is of great importance given the complexities involved in its treatment. However, the National Drug Policy on Malaria (2008) no longer recommends Chloroquine prophylaxis. The policy is in fact silent on the issue. Some Public health experts debate whether there really is a case for withdrawing Chloroquine prophylaxis in pregnancy across the country. Their contention is that even at 20% Chloroquine resistance, 80% of the pregnant women will be protected against malaria.

Currently, one key strategy recommended by the World Health Organisation for prevention of malaria among pregnant women is of Intermittent Preventive Treatment. IPT (mostly with Sulfadoxine-pyrimethamine) has been tried out as a part of Ante Natal Care in Africa and has proven successful in preventing malaria.

There is a need to resolve this debate through field level evidence. But it is also important to provide the pregnant women with some ways, even though imperfect; of escaping from Malaria in Pregnancy.

c) Prevention through Insecticide treated bednets:

Insecticide treated bednets(ITNs) during pregnancy have proven to be effective in reducing malaria



cases and deaths in pregnant women and their children. Some of the states have implemented this but the coverage rates have been low. There have been issues of poor coverage of families, poor utilization of nets and the poorest of families being left out. From the department side there are popular complaints/jokes of tribals using the nets for fishing etc., which is more anecdotal than real.

There has to be a constant and easy availability of insecticide for the bednets. A new kind of Long Lasting Insecticide treated Nets (LLIN) are now being tried out in order to resolve this problem of periodically having to treat the nets. But this strategy is not sufficient by itself and has to be used along with other strategies like intermittent pesticide treatment to yield the best results.

d) Screening for malaria in antenatal care package esp. in tribal areas:

Currently there is no screening of pregnant women for malaria. However this is essential to provide immediate care to the pregnant woman and prevent severe and complicated malaria. This can be a very effective strategy in areas with good antenatal care coverage.

e) Immediate referral:

Immediate referral of pregnant woman with fever is crucial as one is not sure whether it is malaria. Pregnant woman needs to be treated at a functional facility as the complications are manifold. All efforts, financial and logistic have to be made at the village level to ensure that immediate referral happens. The referral transport systems and incentives and support available at the time of delivery under JSY needs to be extended to pregnant women with suspected or proven malaria. This could be done in the district plans of high malarial tribal districts.

4. Issues in Diagnosis of malaria

Traditionally malaria diagnosis has been based on microscopy. While microscopy provided accurate results, it suffered from severe problems. The biggest problem was in ensuring timely diagnosis. The experience has been that it took several days for slides to reach microscopy centres and further delays occurred in reports reaching back to a rural patient. In most cases, patients complained of never receiving their reports at all. Therefore in effect the principle of Early Diagnosis though being a part of the malaria policy could rarely materialize in most tribal settings. It hampered the subsequent principle of Prompt Treatment for malaria.

Rapid Diagnostic Tests- Under the new malaria policy, RDTs will be available at the hamlet level to detect Pf in the malaria endemic areas. These Rapid Diagnostic kits will be given to ASHAs. This will ensure that even in areas where microscopy is not available, Pf malaria cases will be diagnosed and treated or referred. But at present only monovalent (only for Pf) RDTs are being used.

We can see below the relative advantages and challenges of RDTs and Microscopy.

Rapid Diagnostic Tests (RDTs)

Advantages	Disadvantages
Relatively easy to use with minimal training requirement	May give False positives/false negatives
Relatively rapid, giving timely results	Cost per test higher than microscopy
Little or no manipulation of sample required, can be performed in places without laboratories	Unstable in extreme conditions (very hot or very cold) and humidity, requiring reliable supply chain
	Unable to give idea of parasite load
	HRP-2 based kits remain positive after recovery
	Short shelf-life, requiring efficient procurement, transportation, storage and distribution systems
	In many cases, they are less sensitive (& less specific) than microscopy

Microscopy

Advantages	Disadvantages
100% specific	Require trained human resource
Cost effective as able to diagnose more than just malaria along with low recurring costs	Result may not be immediately available to the patient
Highly sensitive	
Can detect all 4 varieties of malaria	
They are heat stable and long lasting	



Thereby, ideally RDTs should be used under the following circumstances-

- Where/when microscopic diagnosis is not available
- In remote communities or highly mobile populations
- For prevention and management of severe malaria
- In special situations like health emergencies where malaria is a risk
- Suspected malaria epidemics
- For diagnosis in travelers, military forces, and organized workforces
- 'After-hours' diagnosis in hospital laboratories or clinics.

RDTs need to be used with caution though their use becomes significant as they will determine the course of treatment with ACT. This is especially crucial for tribal areas where distances are large and geographical conditions make access very difficult. But it is important to ensure that adequate supply of RDKs in good condition is available with the ASHA. Unless transport time from manufacture to ASHA is reduced to less than 6 months, there would not be enough shelf life available. Currently ASHAs in some states are getting the kits with only one month or even less of shelf life left.

It is important to remember that RDTs are not a substitute for Microscopy. But there is a danger that efforts to strengthen microscopy may suffer as the focus shifts to RDTs. There is a need to provide effective system of slide collection & transportation along with decentralized microscopy services.

5. Issues in Malaria Reporting

In planning for combating malaria, one of the most critical elements is information on morbidity and mortality. It is only through the data that one can analysis the situation in an area and then plan for it. Unfortunately, this is also one of the weakest elements of the programme. As we saw in the "Ears of the hippopotamus", more than 80% of the patients do not come in contact with the formal health system. As a result their morbidity and mortality is not counted. Also there is a tendency to under-report malaria outbreaks especially malaria related mortality. Independent studies show gross under reporting both in incidence and mortality. Given below are 3 cases which show the extent of under-reporting.

Case 1- Under-estimation of burden in urban Ahmedabad 1991-1998

Indicator	Study result	Reported by NAMP
Mean Incidence	12.2 per1000.	Mean incidence: 1.3 per 1000.
Malaria attributable mortality	22 Per million	0.3 per million.

Source :Yadav RS, Bhatt RM et al. Annals of Tropical Medicine and Parasitology 2003

Case 2- The JHARMAL study, Jharkhand- Quoted in Estimating the burden of malaria in India 2007. WHO SEARO.

Indicator	Study result	NVBDCP figures
SPR	23.2%	4.8%
Pf rate	70%	41%
No. of deaths	291	9

Case 3- UK figures versus Chhattisgarh data

Indicator	UK (Journal of Infection 2007,54, PP-111-121)	Chhattisgarh (National project implementation plan 2008, PP-13 NVBDCP)
Cases per year	1500-2000 cases/year.	1,90,590 cases/year
Pf %	75%	77.5%
Deaths per year	10-20 deaths per year	3 deaths
Mortality %	1% mortality	0.00002 % mortality

It will not be wrong to say that the situation in reporting is poorer in tribal areas as many of the surveillance systems in such areas are weak. It harms the control programme in several ways. First and foremost by reducing the importance attached to the issue by the government, media as well as the wider society. Finally the figures reported by the department lose credibility and the effort put in to collect and compile them goes waste.

For planning it is important to get the correct picture. For that one can do sample surveys, listing of fever deaths. SPR (Slide Positive Rate) of the peak malaria month is a more valid indicator than API (Annual parasite Index) in areas which do not have adequate facilities for testing and thus have low Blood-smear examination rate.

PLANNING FOR MALARIA IN TRIBAL AREAS

The basic steps for planning for malaria as a part of the DHAP have been described in Lesson 2 and 3 of Book 8. The checklist on malaria control includes the following:

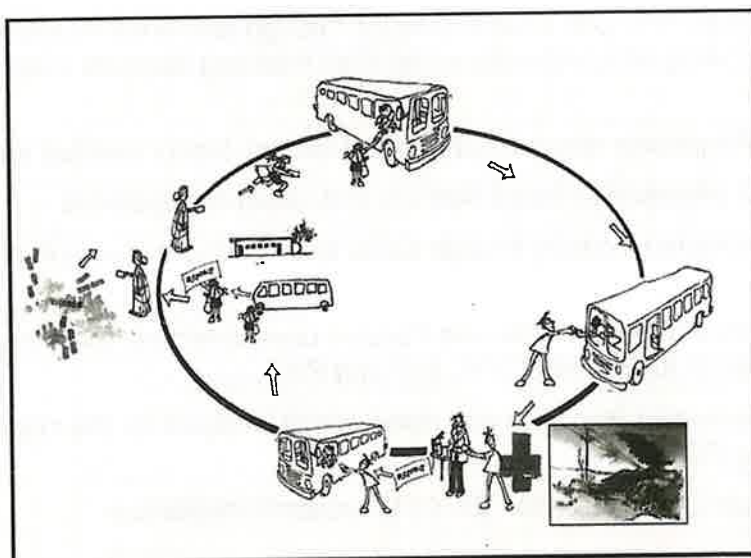


- a) Reducing pool of infected/infective people through early diagnosis and complete treatment, use of primaquine in high transmission areas, presumptive treatment, use of RDTs
- b) Reducing Anopheles mosquito larva population through anti-larval measures like better drainage and engineering, using oil to kill larvae in identified breeding stagnant water sites, use of larvicidal fish.
- c) Reducing Adult Anopheles mosquito population through indoor residual spray
- d) Promoting use of Insecticide treated bednets and mosquito repellants
- e) Reducing malaria related mortality through facility level treatment of complicated and uncomplicated cases
- f) Malaria Surveillance through Active and Passive case detection, examination of blood smears, calculating indices of ABER, API, SPR, SfR and Pf%.
- g) Being able to examine a blood slide and report within 24 hours for the majority of villages and for the rest providing RDTs.
- h) Behavioral Change Communication (BCC) to reduce transmission
- i) Special strategies to address malaria in pregnancy.
- j) Better logistics to supply ACT, Chloroquine, RDTs where they are needed - on time.

While planning for malaria control in tribal areas, all the above activities will be needed. Here, the principle that malaria is a local and focal disease becomes extremely important so that local and focal plans and strategies to control malaria can be thought of. In addition for most of the tribal areas, the following points also require planning:

- k) Planning for malaria in pregnancy: It will require strategies of malaria screening in ANC, Chemoprophylaxis, high coverage of bednets, prompt referral and referral transport availability and improving availability of Quinine and Clindamycin in the health centres.
- l) Implementing new diagnosis protocol in Community level early diagnosis: Most of the tribal areas have more than 30% Pf rate. Therefore RDT based diagnosis can be a useful alternative in many of the tribal blocks. For the diagnosis to take place promptly, ASHA at community level is the suitable human resource to be equipped with adequate numbers of RDTs along with the required training and skills. While RDTs are needed in many tribal areas, strengthening of microscopy in such areas should not be neglected as it has long-term and multiple utility. Therefore tribal blocks should aim to set-up a slide collection system for ensuring within 24 hour diagnosis. This strategy is currently being used in Jan Swasthya Sahyog in Chhattisgarh where the slide is made by the community health worker and given to a child going to high school (usually a bigger village with transportation facility). The child then gives the slide to the bus going to the town where the facility is. The slide gets examined at the facility and the result is sent back in the bus going back to the village where the child picks it and takes it to the community health worker.

An illustration of the process is given -



Thus JSS experience shows that Community Health Workers can be trained to prepare blood smears at the habitation level and the microscopy reports can be sent back in time. But this also requires that the payment of incentives for ASHA gets streamlined. Decentralisation of microscopy services, i.e. if all the PHCs in a block have microscopy, can further increase the efficiency of the slide collection, examination and reporting system.

- m) Implementing new drug protocol: For treatment of Pf positive cases, adequate training and availability of ACTs with ASHA has to be ensured. Irregular availability of drugs at habitation level can seriously derail the entire malaria control programme. Also care has to be taken that the new regime does not replace Chloroquine with ACT. It has a role for both the drugs. Further, care has to be taken that the existing system continues till the new system comes into place. There must not be any period of vacuum or confusion.
- n) High coverage through bednets: Tribal areas having high burden of malaria should plan for high bednet coverage. For this in addition to promotional efforts and BCC, free or subsidized distribution of ITNs can also be considered for some areas. Eg. Chhattisgarh PIP 2009-10 provides for free distribution of bednets to achieve 100% coverage in malaria endemic tribal blocks in Bastar region. Along with distribution of bednets, planning has to be done for re-treatment of the bed-nets with insecticides after every six months. The Village Health Committees can be entrusted with this task. A study by J.S.S. Bilaspur has shown preventive measures like promotion of use of bed nets drastically reduced household expenditure towards treatment costs.



When planning for bed net distribution, it has to be seen whether the design of the bed nets is appropriate for the tribal families. There may be need to customize designs of mosquito nets to accommodate the sleeping habits like several family members sleeping in a row. Or, as most tribal families are not able to afford beds, the bed nets have to be designed such that they can be hung on poles on the ground.

The policy change in terms of introduction of Long-Lasting Insecticide treated bednets (LLINs) should also be kept in mind.

- o) Village Level Malaria Plans: These plans require lot of social mobilization and facilitation effort to get activated. But in high burden tribal pockets such effort can be worth the effort.

Role of ASHA in malaria: A case study from Chhattisgarh

The ASHA is a key person for prevention and treatment of malaria at the hamlet and for generating awareness in the community regarding malaria.

The plan made for ASHA in Chhattisgarh to intervene in malaria saw the ASHA in different roles-

Role in building awareness about malaria- ASHA has a role in spreading awareness in the community about cause and treatment of malaria. The ASHA was given a tool with which she was to interact with the community. It consisted of a set of questions-

How does malaria occur?

How does it spread?

What are the symptoms?

How to get it diagnosed?

What is the treatment?

What can you do to prevent malaria?

What can the habitations and panchayats do?

A simple poster posing the above questions was designed and distributed in all habitations through the ASHA. The poster was used by the ASHA to have a community discussion on malaria. Along with this there were Kalajathas (traditional street theatre) being conducted in clusters to spread the messages.

Role in treatment- ASHA was taught to treat all cases of fever as malaria. She has to take blood slide or test through Rapid diagnostic kit and provide the medicine Chloroquine or ART. One special contribution of ASHA was her ability to ensure that each patient takes the full dosage. She was also taught to recognise severe cases of malaria and immediately refer them to the PHC/CHC. Along with this her training curriculum included discussions on rational drug treatment and also about the dangers of getting inadequate though expensive treatment from private practitioners.

Role in prevention - ASHA motivated the community to take steps in vector control. She motivated formation of Village malaria plans. For this ASHA learnt how to identify anopheles larvae in locations of stagnant water. She then identified volunteers through village health committees to work on larvae control. She taught them how to identify anopheles larvae in stagnant water in pits, rock pools, riversides, wells, tanks, ponds etc. and to put kerosene or burnt mobil oil in them so as to kill the larvae. ASHA also helped in communicating to the community regarding the importance of use of bednets. E.g. in one village, bednets had been distributed to 5 pregnant women. But they were being used by other members of the family. The ASHA along with the women's group went to all these households and explained to these families the importance of the pregnant mother using bednet. Due to the awareness created by ASHA, VHSCs in several villages chose to utilize some part of their untied fund for supplying bednets for all pregnant and lactating women in the village. Several VHSCs also provided bednets to the poorest families in their villages.

Challenges:

- Irregular and inadequate supply of anti-malarial drugs to the ASHA in some places.
- Microscopy results were not reported in time in some blocks. This resulted in less and less slides being collected in such areas.
- Referral transport was not available and many patients from extremely remote areas could never reach the facility.
- Lack of regularity in payment of incentive to ASHA for slide making etc.
- Developing village malaria plans and getting volunteers to actually implementing the plans on a sustained basis required high levels of regular field based support to ASHA.

Can you prepare a plan for ASHA's role in malaria for your district in light of the above case study?

Another activity which has shown good results in reducing malaria morbidity and mortality in highly endemic tribal areas is of ensuring availability and distribution of Chloroquine. An ICMR study in Orissa shows the impact of such in intervention.



Impact of community-based presumptive chloroquine treatment of fever cases on malaria morbidity and mortality in a tribal area in Orissa State, India⁵

In this intervention in Koraput district of Orissa, volunteers from villages were selected for distribution of chloroquine and the selection was made either by villagers or head of the village. The services of the volunteers were absolutely free and voluntary in nature. Chloroquine was provided free of charge to all fever cases. The impact was evaluated based on the changes observed in fever days, fever incidence, parasite incidence and parasite prevalence (proportion of persons harbouring malaria parasite) in the community.

Results: A total of 411 village volunteers in 378 villages in the experimental community health center with a population of 125,439 treated 88,575 fever cases with a mean annual incidence of 331.8 cases per 1,000 population during the three-year study period. There was significant reduction in the parasite prevalence in high endemic villages of the intervention area during 2nd and 3rd year. Mortality due to malaria declined by 75% in the intervention villages in the adult age group.

Conclusion: The study demonstrated that chloroquine distribution system operated by village volunteers in tribal areas is feasible and effective in reducing malaria-related morbidity and mortality.

- p) Use of GIS mapping along with other parameters to identify highly endemic areas and accordingly plan malaria control activities have been particularly helpful in states like Assam & Jharkhand.

Some of the following gains may be attributed to the use of GIS mapping for planning:

During 2006 there was outbreak of Malaria in many of the districts of Assam and a total of 126178 malaria cases and 304 deaths were recorded in that year.

Declining trend however has been noticed in the following years.

In the year 2008 there were 77412 cases against 86748 in 2007. Death due to Malaria has also decreased to 84 during 2008 from 118 in 2007.

Thus there has been a decrease in malaria morbidity and mortality of around 10% and 29% respectively in the State.

(Source: Assam State PIP 2009-10)

- q) The NVBDCP guidelines for commodities needed for the programme should be kept in mind.

⁵Lalit K Das*, Purushothaman Jambulingam and Candasamy Sadanandane India Malaria Journal 2008, 7:75 doi:10.1186/1475-2875-7-75

Commodities supplied under the malaria program

- From NVBDCP HQs
 - Antimalarial Drugs
 - Diagnostic tools like RDK
 - Insecticides both for IRS and bed net impregnation
 - Mosquito nets
- Procurement by the state
 - State fill up the gap in case of short supply
 - Slides and lancets is procured in few occasions for supply to districts
- Procurement by District
 - Slide, Lancet, Stain and other lab consumables
 - Funds for the same is reflected in the state PIP
 - Sanctioned fund is allocated to the districts for local procurement

It also provides a checklist of anti-malarial drugs needed at various levels:

Antimalarial drugs: A Check List

- Chloroquine Tablet 250Mg
- Primaquine tablet- 2.5 mg
- Primaquine tablet- 7.5 mg
- Quinine Sulphate Tab (300 mg)
- Sulfadoxine- Pynemithamin combination Tab
- Injection Arteether (E-Mal- Amp)
- Injection Quinine (Amp)
- Rapid Diagnostic Test Kit for Malaria (RDT)
- Combi blister pack (Tablet - ACT i.e AS + SP)
- Artesunate Tablet (in nos)
- Combi blister pack (CHLOROQUINE + PQ)

Insecticides / Nets

- Synthetic Pyrethorid (Liquid) in ltrs
- Synthetic Pyrethorid WDP 5 % (n MT)
- DDT 50% (in MT)



The draft Operational Manual for Implementation of Malaria Programme 2009 also provides the blueprint for planning amongst communities which are highly vulnerable to malaria.

Vulnerable Communities' plan (VCP)

Abstract:

As tribal habitations are concentrated in remote, forest or hilly areas the Government has enhanced the facility by relaxing the norms for health care infrastructure: The National Rural Health Mission (NRHM) launched in 2005 seeks to improve access to health care by strengthening the public health system notably with a village-based worker known as the ASHA, greater engagement of the private sector, and increased and flexible finances. It also seeks to enhance community demand for and ownership of services, and coordinated planning and implementation across related sectors such as Women and Child Development and Tribal Affairs.

In many tribal areas, traditional panchayats and Tribal Councils deal effectively with tribal issues. In addition to these traditional leadership systems, special legislation, the Panchayat Extension to Scheduled Areas Act, has introduced the 'modern' system of panchayats to scheduled areas. The NRHM has enhanced the ability of local panchayats to address local needs and priorities to improve health by providing untied funds to Village Health and Sanitation Committees (VHSCs). Additional funds are provided to the ANM and local panchayats have been mandated to ensure optimal resource utilization. Consultations at various levels with such vulnerable communities during programme implementation have been visualized for community involvement in the healthcare.

Action Plan:

Most of the high prevalence areas are tribal or backward, and many of its intended beneficiaries are tribal or other vulnerable people, so intervention strategies in these areas are designed to address the constraints faced in these areas and by these people in prevention, diagnosis and treatment of malaria.

The strategies include supply-side improvements; increasing access according to need; communication for demand-generation, informed decision-making and improved practices; socio-culturally appropriate and gender-sensitive planning and implementation; and monitoring by dedicated VBD experts and Social Development specialists.

The consultations at the client and sub-district levels of the health system will focus on whether the program is reaching vulnerable groups, and cover all aspects of service delivery related to this project, including the cultural acceptability of interventions, BCC activities and grievance redressal mechanisms. At district level and above, the consultations will focus on whether tribal people and the most backward areas are receiving due attention in all aspects of program planning, management and implementation, including capacity-building and monitoring of private providers; and monitoring by Panchayats

At District Level: In all malaria endemic districts, the VCP will primarily be the responsibility of the

District VBD Officer. The VCP will be implemented by the District VBD Officer with the support of the District VBD Consultant. This team will coordinate with the sub-district levels, and report on progress, constraints and resource requirements to the state team.

Source : Operational Manual for Implementation of Malaria Programme 2009 (Draft Document)
Directorate of National Vector Borne Disease Control Programme
Accessed at www.nvbdc.gov.in



Review Questions:

1. What are the reasons for more malaria in tribal areas?
2. What is the treatment protocol proposed by the NVBDCP for malaria in high Chloroquine resistance areas?
3. What are the advantages and disadvantages of Rapid Diagnostic Kits (RDks)?
4. What are strategies to counter malaria in pregnancy?
5. What are the ways in which communities can plan for control of malaria?
6. What is the role that ASHA can play in the above plan?

Application Question:

1. What are the essential requirements in a facility for management of severe malaria? Do the CHCs in your district provide these facilities?

Project Work:

1. Find out what is the plan in your district to involve ASHA in malaria control (what is the training plan, recognizing ASHA as FTD etc). Then visit 10 ASHAs and find out the status of their training on malaria, availability of drugs, slide preparation and reporting etc. What are the gaps which you find? Prepare a plan to address those gaps.

NOTES



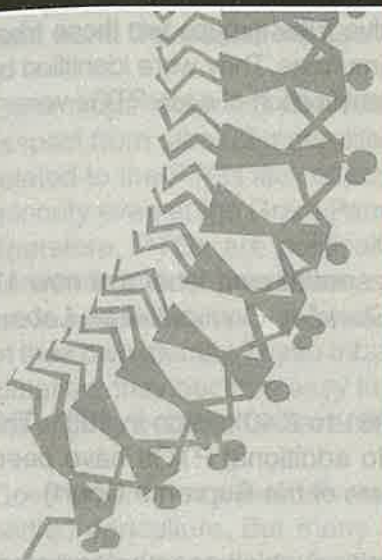


Lesson SIX

Particularly Vulnerable Tribal Groups: Special Needs

In this lesson we shall discuss:

- How Particularly Vulnerable Tribal Groups (PTGs) are defined
- Special health issues of PTGs including Powerlessness, Severe Exploitation, Declining Livelihoods, Hunger and Food Insecurity
- Extent of malnutrition among the PTGs
- Crisis of declining population
- Strategies for addressing special needs of PTGs



WHAT ARE PARTICULARLY VULNERABLE TRIBAL GROUPS?

Particularly Vulnerable Tribal Groups (PTGs) which were earlier called Primitive Tribal groups are those tribal groups which have been identified as the most vulnerable amongst tribal communities. They were identified by Government of India, first in 1975-76 and thereafter in 1993. The criteria for identification of such PTGs were:-

- (i) Pre-agricultural level of technology;
- (ii) Very low level of literacy; and
- (iii) Declining or stagnant population

Based on above criteria, 75 tribal communities were identified as PTGs spread over what are now 17 States and one Union Territory. The state wise list of PTGs is annexed. *Standing Committee on Labour and Welfare 2002, Development of Primitive Tribals Groups*

The population of PTGs has increased marginally from 2.04 million in 1981 to 2.40 million in 1991. The PTGs have been systematically identified since 1975-76 to 1993-94. No additional PTGs have been included based on the 1991 census. (Eighth Report of the Commissioners of the Supreme Court)

There had been considerable criticism regarding the use of the term 'primitive' which seems derogatory and insensitive and it was suggested instead to use terms like 'pre-agricultural' tribes or 'specially excluded tribes'. Presently these groups are referred as Particularly Vulnerable Tribal Groups by the Tribal Ministry. (Annexure 4 : Statewise list of PTGs with population)

SPECIAL HEALTH ISSUES OF PTGs

1. POWERLESSNESS, SEVERE EXPLOITATION AND DECLINING LIVELIHOODS

The issues of health and nutrition are very severe in these communities. Their traditional occupations have been under threat and destroyed in many cases. This has led to their further impoverishment. The 10th Five Year Plan of the Government of India describes the problems of these vulnerable communities: "A decline in their sustenance base and the resultant food insecurity, malnutrition and ill-health force them to live in the most fragile living conditions and some of them are even under the threat of getting extinct."

The nutritional status of PTGs has remained lowest amongst all tribal groups, the main reason being abject poverty due to the loss of traditional livelihoods. The PTGs have traditionally been dependent on shifting cultivation, forest produce gathering, bamboo weaving and other forest based livelihoods. Reservation of forests starting from British rule and especially the banning of shifting cultivation were major triggers for decline of many of these communities. For example, the Baiga tribe in Madhya Pradesh could never recover after shifting cultivation was banned in their areas. Large scale deforestation due to commercial exploitation of forests also had a huge impact on availability of forest based foods and other products. For example, bamboo weaving tribes like Kamar, Pando in Chhattisgarh suffered a major blow



when huge tracts of bamboo forests were wiped out as bamboo was sold by the Government to paper companies. These tribes could no longer practice the skill they possessed and had to depend upon less paid work. Deforestation resulted in less and less forest produce being available to PTG communities.

Other major factor has been the devaluation of their culture and customary practices. PTGs receive little respect from other communities. Even other tribes look down upon them. Many of these behaviours are related to the PTGs lack of access to power and a political voice. PTGs, many a times, end up being a minority even at the Gram Panchayat level. Most of these hamlets have non-PTG Panchayat presidents. Therefore, PTGs are politically marginalized, which is evident from the fact that even where PTGs constitute bulk of population, a non-PTG is more likely to get elected as Panchayat president. They are yet to completely comprehend, let alone lead the modern way of life and are often made to feel ashamed of their own identity. These tribes are politically the most disempowered. As a result of their poor economic situation, they become easy targets for exploitation by other communities. It is common to see that even the slightly better off tribal and OBC communities are exploiting the PTG families living near them.

Government has made efforts to rehabilitate some of PTG populations in more mainstream trades like settled agriculture. But many of these efforts have failed as the PTGs lack the means, skills and the experience in practicing the new occupations. As a result, they are reduced to doing poorly paid casual wage labour work and even that is not available regularly. Government programmes like Food for Work and Employment Guarantee have also largely failed to address the livelihood needs of these communities, e.g. the wage payments under Employment Guarantee Programme have been found to be delayed by a month or more. These poor families cannot afford to wait for the wages for such long periods. As a result, they often choose much lower paid work having more prompt payments.

A survey done of PTGs in Jharkhand reiterates the desperate condition of these groups. PTGs constitute 16.87% of population in Jharkhand which is a significant number. The literacy rate for PTGs was found to be just 17% while the literacy rate of the total population is 44.48%. Analysis of monthly income amongst PTGs showed that 99% of the PTGs earned less than Rs. 1000 per month.

The following table shows the monthly income of PTGs

Monthly income (Rs)	% of PTG families
500	70.28
600	10.88
700	8.5
800	6.24
900	0.30
1000	2.7
Above 1000	1.09

Survey on PTGs in Jharkhand- A Report, Government of Jharkhand, 2003-04

2. HUNGER AND FOOD INSECURITY

As a result of breakdown of their traditional livelihoods, availability of food is poor for most PTG families. Consumption of pulses, vegetables or poultry is infrequent. In a survey of PTGs in Chhattisgarh, it was found that they ate only boiled food as buying cooking oil was beyond their reach. Most PTG families spend most of their time in trying to earn enough rice (or other staple cereal). While the capacity to buy food is limited, the production in their own fields is also grossly inadequate. PTGs usually own very little or poor quality lands. They lack the supporting resources and skills to grow even a quarter of their annual food requirement. As a result, starvation deaths are most common among PTGs; e.g. Birhor and Paharia tribe in Jharkhand and Saheriya tribe in Madhya Pradesh, Rajasthan experienced a large number of starvation deaths time and again as in year 2002 and 2008. The deaths are rarely recognized by administration as starvation deaths. Usually they are reported as result of some illness. 'Victim blaming' is often used to explain even the illnesses, e.g. some of the starvation deaths amongst PTGs were reported as due to infections and PTGs were considered as responsible for their own deaths as they had habit of consuming dead animals.

Government has an important role to play in ensuring food security for PTGs. Supreme Court has ordered that all PTG families should get Antodaya cards so that they can access 35 kilograms of grain at subsidized rate (Rs. 2/kg for wheat and Rs 3/kg for rice). But the situation of food security still continues to be poor for many of the PTGs. PTG habitations are also marginalized in terms of their location. Usually they are small and inaccessible. As a result, facilities like Ration Shops, Panchayat headquarters, Schools, anganwadi centers etc are located at a great distance and therefore poorly accessible. Caste based discrimination is also practiced in some areas and as a result some PTGs suffer further loss of access to food security programmes like PDS, ICDS, Mid-Day Meals etc.

Deforestation, banning of shifting cultivation and other restrictions on access to forests have also reduced the direct availability of forest based foods. This has had an impact on not only the absolute quantity of food available but the rich traditional variety in diets has also been eroded. The following commentary analyses this-

"The communities which are today called PTG by the government are the ones who have been slowly and painfully dying of severe malnourishment as their traditional sources of nutrition and subsistence have been taken away some decades ago, as a result of the forest and wildlife protection policies of the government. Shifting cultivation - which is practised not just in the north-east, but also in Bihar, Jharkhand, Orissa, Andhra Pradesh, Madhya Pradesh, Kerala, and marginally in Karnataka (Bose 1991), along with hunting/gathering practices ensured a regular supply of food to a large number of communities. Income from trading items and their derivatives obtained from the forest also allowed these communities to buy food for cash, which is now prohibited.

Forest laws have led to such communities being subjected to intense hunger for the following reasons:(a)



Depending on the altitude, shifting cultivators used to and still try and grow maize, vegetables, potatoes, ginger, chillies, rice, millets, pulses, beans, sweet potatoes, oil seeds, yams, millets, mustard, sugar cane, sesame, pineapples, citrus fruits, bananas, jackfruits and so on. (b) Small game like fowl, rabbits, deer, peacocks, hogs, monkeys, etc, used to be an important source of protein for a large number of hunting communities. (c) Bark, roots, tubers, corns, leaves, flowers, seeds, fruits, sap, honey, toddy and other forest produce was a regular source of nutrition for gathering communities. (d) Fish in ponds and streams in the forest also used to be a traditional source of protein. (e) Lack of access to pasture land for grazing animals owned by a number of these communities has led to a decline in the population of cattle which used to be the main source of milk and meat for nomadic communities which kept cattle." (Radhakrishna, 2009)

The Eighth Report of the Commissioners of the Supreme Court: A Special report on the Most Vulnerable Social Groups and their Access to Food (September 2008) provides the following analysis in its chapter on 'Primitive' Tribal Groups-

1. Integrated Child Development Scheme (ICDS)

In 2006, Madhya Pradesh Right to Food Campaign team which was investigating the incidence of malnutrition deaths amongst Saharia in Patalgarh village, found that there was only a temporary Anganwadi in the village visited and the nearest anganwadi was situated some 17 kms away. While, 70 children had been enrolled by the villagers in the Anganwadi, Supplementary Nutrition Programme (SNP) had been unavailable from January - June 2006.

The 2006 Joint Commission of Enquiry (JCE) in Sheopur, found that 850 ICDS centres were required but at the time of the investigation in only 647 had been sanctioned and amongst them only 587 were actually functioning.

The greatest exclusion the Pahadi Korwas face too is in the ICDS programme. Out of their 500 odd habitations, only about 100 have anganwadis. Of the remaining some children from 150 odd hamlets were able to partially access ICDS facilities. Therefore children from 50 per cent of the Pahadi Korwa hamlets do not have any access to any of ICDS services.

The outreach of ICDS to these groups is minimal, because:

- (a) Villages exclusively inhabited by these groups have not been allocated any AWCs (eg, in Achanakmar area of Bilaspur district, there are sufficient centres as per the population norm, but in a majority of the cases, the anganwadis are located in non-Baiga villages).
- (b) They stay in hamlets which are far from the main village, where the anganwadi is typically located. In Beerupalli village in Andhra Pradesh, for instance, both the tribal and dalit hamlets were located at a far distance from the main village where the anganwadis was located.
- (c) Their own hamlet is often considered too small to open even a mini-anganwadi.

The main reason for this degree of exclusion is related to their settlement pattern. Pahadi Korwa habitations are often on the edge or on top of the hills while the nearest main village lies in the valley. The distance and terrain makes it difficult for them to access the anganwadi. Despite Supreme Court orders, no preference has been given by the State Government to give a preference to Pahadi Korwa habitations while opening new centres. The common excuse is being that Pahadi Korwa habitations are too small (average size 40 households) to deserve an anganwadi.

Other Particularly Vulnerable Tribal Groups like Chenchus face similar tales of exclusion due to their remote settlement patterns.

2. Midday Meals (MDM)

A field visit by Harsh Mander, the Special Commissioner to the Supreme Court (CWP 196/2001) in Sahariya villages of Madhya Pradesh in September 2004 found that children were deprived of their daily food entitlements because the teacher came to school only twice a month. In some villages even if the school is functioning, children were given only a spoon each of ghogri or dry wheat porridge each day. Some children took this dry food home as the only major meal for the entire family!

Given the destitution of several 'Primitive' Tribal Groups, it is pathetic state of affairs that a large proportion of children who have no access to schools, either due to absence of schools or unwillingness of children to attend mainstream education. Absence of schools would be justified by the State based on the physically isolated lifestyle of 'Primitive' Tribal Groups. The official alibi of the alleged unwillingness of tribal children to attend schools which merits careful interrogation.

A child-protection action research undertaken in tribal villages of Rajasthan clearly brings forth the barriers which alienate tribal children within the mainstream schools. Urban-based curricula do not give reference points to tribal history or culture. Stigmatisation and racism against tribal students, timing of schools and teacher absenteeism are important hurdles. Tribal community members also were wary that after receiving an education (sometimes by staying in hostels) their children often did not identify themselves with their tribal community.

3. Targeted Public Distribution Scheme (TPDS)

In conditions of stark and extreme poverty, an overwhelmingly large majority of Sahariya households surprisingly had Above Poverty Line (APL) cards. In other words, according to the government survey they were not classified as poor, and therefore not entitled to subsidised grain. Even for those with cards, ration shops often did not function; therefore most villagers had to purchase wheat from the open market as Rs. 8 a kilogram.

This situation is despite the Supreme Court order of 2nd May 2003 in Right to Food Case, which specifies that all PTGs are entitled to an Antyodaya Card. There are also media reports which shows that fair price shops in Sahariya villages has been distributing rice to the Antyodaya Anna Yojana cardholders at twice the stipulated price (i.e. Rs. 6 per kilogram). The Madhya Pradesh Right to Food



Team found that in one of the Sahariya villages visited, only 70 Antyodaya Anna Yojana cards were issued last year despite the total population of the village being 580. However, even those villagers, who are fortunate enough to have a card, have not received rations for the past three months.

The administration has opened temporary Fair Price Shops at the village but according to the villagers it rarely opens. When the fact-finding team visited the village it found about 36 quintals of grain in the shop. When the issue was raised with the local administration, the very next day the ration was distributed.

In case of Pahadi Korwas, the level of exclusion has come down in last four years after the State Government implemented the SC order on Antodaya cards for all 'Primitive' Tribal Groups. Pahadi Korwa Mahapanchayat was instrumental in aiding the process of card distribution. Almost 98 per cent of the surveyed families have received their ration cards at which they can get 35 kgs of rice at Rs 3 per kg per month. The only discrepancy is in the case of around 1000 Pahadi Korwa joint families who got divided after their son's marriage and now have only one card instead of two.

Most Pahadi Korwas reported that they were able to access their 35 kgs of rice every month at the stipulated rate. However they expressed one problem that due to the fair price shops (FPS) remaining open only for 2-3 days per month (in more than 50 per cent of cases), they had to face problems in arranging lump sum money at a short notice. However, most were still able to access their quota and the rice reached the shops in the first week of the month.

4. National Rural Employment Guarantee Scheme (NREGA)

The Report of the Joint Commission of Enquiry found that some of the villagers have been registered and have also received their job cards but neither have they applied for work nor has work started in the village. The villagers had gone to meet the Panchayat Secretary, but he misled them by saying that there is no need for application and that the work would begin soon. The job cards were with the Panchayat Secretary, who makes all entries in the card and there were cases noted where the entries in the job card did not match the money reportedly received by the worker, which suggests leakages.

The media reported that in a Chenchu village the forest department stopped a scheduled NREGA work that was supposed to take place. The government had promised Chenchus work under NREGA and inaugurated road construction. However, as the forest department objected to digging, the work had to come to a halt. Although all of them found work for a month, only half of them were paid their wages and the others have not been paid.

In Chhattisgarh, only 20 per cent of the Pahadi Korwa households are estimated to have participated in NREGA works. The main reasons for low participation are twofold. Worksites are seldom close to Pahadi Korwa habitations. They have to come down from hills to work. Secondly, there are long delays in payment of wages (average delay of more than 2 months). Such uncertainty in timing of payment makes it difficult for the poorest of the poor like Pahadi Korwas to participate.

3. WHAT IS THE EXTENT OF MALNUTRITION AMONG THE PTGS?

A number of studies have calculated the malnutrition status amongst children and adults from PTGs. All the studies found very high levels of malnutrition among PTGs.

The following Table shows the extent of malnutrition among children of some PTGs, from various studies-

PTG	Underweight Pre-School Children (%)	State
Kamar	90	Chhattisgarh
Onge	85	Andamans
Dongria Kondh	90	Orissa
Paharia	86	Jharkhand
Great Andamanese	85%	Andaman and Nicobar Islands
Baiga	69.7 <2SD	Madhya Pradesh
Bharias	52 <2SD	Madhya Pradesh

Thus we see that most of the PTGs have 70% or more children as underweight. In many of the PTGs, almost all the children are underweight. This is considerably higher than the national average of underweight children of 46%. Malnutrition amongst PTG children is also much higher than amongst other STs (58%).

In terms of severe malnutrition, PTG children fare much worse. Paharia tribe in Jharkhand has as many as 40% children in Grade III and IV who are severely malnourished. Most PTGs have 20% or more children in these categories whereas for most other communities it is below 10%.

Severe malnutrition (underweight)

PTG	Severe Underweight %	State
Bondo	16	Orissa
Didaya	19	Orissa
Juanga	25.1	Orissa
Kutia Kondh	26.6	Orissa
Paharia	40	Jharkhand
Onje	10	Andaman and Nicobar Islands
Dongria kondh	35.8	Orissa
Baiga	24.3	MP



Studies amongst PTG adolescents in Mayurbhanj and Sundergarh districts of Orissa show that 66% were underweight. 77% of the Great Andamanese adolescents were found to be stunted.

Malnutrition amongst PTG adults is also higher than any other community group in the country. While the national average for this dimension (adults with BMI <18.5) is around 35%, the number of malnourished adults amongst most PTGs is around double that or even higher.

Chronic energy deficiency of Adult population

	PTG	BMI below 18.5	State
	India Total	35.6 female 33.7 men	
	India ST	46.6 female 41.3 men	
	Langiya Saora	89.4	Orissa
	Kutia Kondh	88.9	Orissa
	Bharias	35.6	Madhya Pradesh
	Baigas	76	Madhya Pradesh
	Dongria Kondh	57	Orissa
Severe	Dongria Kondh adult females	25% < 16 BMI	Orissa

Severe malnutrition amongst PTG adults shows the absolute lack of access to food. A study of Dongria Kondhs showed that 25% of the women had BMI below 25%.

4. CRISIS OF DECLINING POPULATION: FERTILITY, MORTALITY AND MORBIDITY

a) Fertility and Mortality

One of the distinguishing characteristics of the PTGs is their declining or stagnant population. The main reason behind this is the high levels of mortality amongst these tribes. Let us look at some studies which have calculated birth and mortality rates for certain PTGs.

A study by RMRC Bhubaneswar of four PTGs of Orissa -

	Bondo	Didayi	Juang	Kutia Kondh	India
Infant Mortality rate (IMR)	139.5	131.6	132.4	128.7	61
Crude death rate (CDR)	19.2	23.7	21.2	20.9	8
Crude Birth rate (CBR)	18.31	24.3	22.3	21.6	18.8
Life expectancy	48.7	57.1	49.6	50.7	63.87

The above table shows shockingly high infant mortality (IMR) and Crude Death Rate (CDR). IMR among PTGs is more than double of the national average while the difference in CDR is much higher. All this reflects in the life expectancy at birth which is much lower for the PTGs.

In the case of PTGs of Madhya Pradesh and Chhattisgarh, a similar trend can be seen. As shown in the following table, the IMR and death rate are higher than the state average.

Selected statistics of the primitive tribes of Madhya Pradesh

	Bharias	Birhors	Kamars	Rural M.P.
Birth Rate	33.3	34.8	32.9	33.3
Death Rate	14.9	17.6	14.5	11.6
Growth Rate	18.4	17.2	18.4	21.7
IMR	139	154	155.4	106.6

Source : (Some aspects of population growth of the primitive tribes of Madhya Pradesh, Dr.. G.D. Pandey and Mr. R.S. Tiwary, Journal of Family Welfare, Vol. 46, No. 2, October 2000)

Another study on among the Saharia PTGs of Madhya Pradesh again shows very high IMR and CDR.

Various measures of mortality among Saharias

Mortality Measures	
CDR	25.77
Still Birth rate (SBR)	26.66
Peri-natal Mortality rate (PMR)	54.79
Neo-natal Mortality rate (NMR)	54.79
Post Neo-natal Mortality rate (PNMR)	68.49
Infant Mortality Rate (IMR)	123.28
Child Mortality rate (CMR)	62.82

Source : (A Study on Mortality Among Saharia - A Primitive Tribe of Madhya Pradesh, Ranjan Kumar Biswas and A.K. Kapoor, Anthropologist, 5(4): 283-290, 2003)



A study on Hill Korwas of Chhattisgarh reiterates the high mortality

Statistic	Hill Korwa	Chhattisgarh	India
GFR	129.2	-	125.2
TFR	3.01	2.79*	3.2**
CBR	28.23	25.2	26.1**
CDR	11.9	-	8.7**
IMR	166	80.9*	70**
Sex ratio	916	990*	933**

Source: **SRS 1991; *2001 Census of India

Socio-demographic profile of Hills Korwas of Chhattisgarh, Sandeep Sharma et al, Indian Journal of preventive and social medicine, vol. 38, No. 3 and 4, July-Dec, 2007

We can see that the fertility rate is higher than rest of Chhattisgarh and nearly the same as India. But IMR is more than double of India and the crude death rate (CDR) is much higher than India.

b) Morbidity

The diseases that affect the PTGs are mostly similar to other tribal groups but the severity and prevalence of the disease increases due to malnutrition and lack of access to adequate health services.

- A previously quoted study analyses the reasons for mortality among the Saharias. It finds pneumonia (21%), malaria (13.8%) and TB (11.6%) as the main killers.

S No	Reasons of death	%
1	Pneumonia	20.9
2	Malaria	13.8
3	Tuberculosis	11.6
4	Gastric disease	9.3
5	Diarrhea	9.3
6	Typhoid	7.0
7	Jaundice	6.7
8	Anemia	4.7
9	Diabetes	4.7
10	Indigestive disease	4.7
11	Accident	2.3
12	Disease not identified	7.0

Source : A Study on Mortality Among Saharia - A Primitive Tribe of Madhya Pradesh, Ranjan Kumar Biswas and A.K. Kapoor, kamla-Raj 2003, Anthropologist 5(4): 283-290, 2003

- A study on the prevalence of Hepatitis B infection among Jarwas of Andaman and Nicobar gave the alarming result that over 60% of the Jarwas tested positive for hepatitis B surface antigen (HBsAg). This is the highest reported rate of HBsAg in the world.⁶
- Study amongst Sahariyas in MP showed they were more prone to TB than non-tribals.

	Tribal (Sahariya PTG)	Non-tribal
Sputum examined	436	189
No. +ve	96	46
Rate/1000	15±2.9	9.7±2.8

Source : Survey of pulmonary tuberculosis in a Primitive of Madhya Pradesh, 1996⁷

- Another study on the reproductive health practices of PTGs (Abujhmarias, Baigas, Hill Korwas, Bharias, Kamars, Saharias and Birhors) of Madhya Pradesh also shows the vulnerability of these groups resulting in high mortality.

"Acute poverty (over 90 per cent below the poverty line) and high illiteracy (over 90 per cent illiterate) mark their lives. From the health and nutritional point of view too, they are vulnerable. Studies have reported high prevalence of respiratory infections among children, genetic disorders and malnutrition especially among preschool children and among women of reproductive age (Pandey: 1996). Demographic studies carried out among these tribes have reported high mortality levels, especially infant mortality rate, which is as high as 155 compared to 106.6 for the State. About half the number of infant deaths occurs during the neonatal period. The interval between first birth and subsequent births is generally longer among these tribes than that in the other population in the same area (Pandey: 1999, Pandey and Tiwary: 1996). A comparison of population indices has revealed that the primitive tribes are lagging behind the population of the State by about three decades (Pandey: 1988)."⁸

The PTG villages suffer frequent epidemics. Outbreaks of diarrhea, malaria and cholera are very common. What is even more striking about these epidemics is the high number of deaths that occur. It is also important to understand our response to such outbreaks.

⁶ Alarming prevalence of hepatitis-B infection among the Jarawas - a primitive Negritotribe of Andaman and Nicobar Islands, India, Murhekar MV; Murhekar KM; Sehgal SC, Journal of Viral Hepatitis, 2003, May; 10(3): 232-233

⁷ T. Chakma, P. Vinay Rao, S. Pall, L.S. Kaushal, Manjula Dutta and R.S. Tiwary, Ind J. Tub., 1996

⁸ Socio-cultural reproductive health practices of primitive tribes of Madhya Pradesh: some observations, Pandey GD; Tiwary RS, Journal of family Welfare, 2001, Oct; 47 (2): 27-33



Case Study

Mahuatikra is a Pahariya Baiga village in Godda district in Jharkhand. There were newspaper reports on 4 diarrhea deaths in one week, including death of two school children. The health administration visited the village and found that four people had died that week and in nearly every house at least one person was suffering from diarrhea. The BMO and other doctors rushed to the village and health workers set up camp there for the next week.

The journalist, who had first written about the deaths, took interviews of the BMO and the villagers. Below are their responses regarding the deaths:

BMO- "We found that there have been four deaths in this village in the last week, but none of them are diarrhea deaths. Three of the deaths were due to eating rotten meat and one child was from another village and had been ill before coming to this village. These people keep eating rotten food and die and then the blame comes on the health department. They don't want to get treated and only believe in jhar phoonk. There were two-three cases of diarrhea in the village, which is common during this season. We have treated them and everything is fine."

Baiga villagers- "This is not an unusual occurrence. Every year, there are many serious cases of diarrhea during this season. Last year a one year old child and a 16 year old boy died. We had carried the boy on the shoulder to the hospital (PHC) but the Doctor was not there and he died on the way back. The year before that too, one person had died. We have to accept our fate."

Do such events take place in your district? In which areas? How should one respond to news of such an epidemic? Can there be a strategy of preventing such epidemics?

5. DISCRIMINATORY POPULATION POLICY

As a strategy for curtailing the decreasing population, in 1978, Madhya Pradesh state government banned sterilization among these tribal groups. This policy exists in other states too like in Jharkhand. But as we see in the above analysis, decreasing population is more due to the high mortality amongst the PTGs rather than low birth rate.

Case Study

Raghobai, a Saharia of Sheopur district in Madhya Pradesh had three children when she wanted to go for sterilisation. She came to know of a camp being held in the PHC near her village so she went there. During registration when the health workers got to know that she is a PTG, they told her that she is not allowed for the operation as it is the law. Raghobai went back to her village. A year passed and she had had another child. This time round she went to the CHC. This time she told them she was a Gond

(not a PTG). When she went in for the operation, the ANM from her village was on duty. The ANM recognized her and scolded her for lying and was angry that she would land all of them in trouble. Raghobai once more went back to her village frustrated. Raghobai now has nine children and has given up hope that any Doctor will perform the sterilization operation on her. Facing such denial of basic right to sterilization, most PTG women have also given up hope over the years just like Raghobai did.

What should be the policy to arrest the decline of population amongst PTGs - Reducing the death rate or keeping the birth rate high? Or will they be more vulnerable to coercive pressures if this ban is removed? How do we allow contraceptive choice to these tribal families? Should we not at least promote reversible measures like long acting IUDs.

6. TENDENCY TO BLAME PTGs FOR THEIR POOR HEALTH

There is a tendency to blame these communities themselves for their poor health and high mortality. This happens because we do not understand their context that leads to their vulnerability.

Let us take a case and try to understand this:

It came to the notice of the CMHO that no child had been immunized in a Pahari Korwa hamlet called Pandripani in Sarguja district. The ANM of the area was summoned and asked to explain. She said that the Pahari Korwa families are not cooperative. They don't bring their children during the Village Health and Nutrition Day (VHND) which is held every month in the main village Kora. The officials present all agreed that this community does not care for its children and women. Hence it is no wonder that there is so much illness and death among them. They all came to a consensus that nothing can be done about these communities.

In spite of this, the DPM decided to visit the hamlet. She had to trek for two hours to reach the hamlet. She talked to the people there to find out more about why they don't take their children for immunization. She found out that the nearest Anganwadi center is 5 kms away from the hamlet; hence the children are not able to attend the Anganwadi. The people were also not aware of when the VHND is held. They said that the last time a health worker visited was six months back to give polio drops. She found that the two pregnant women in the hamlet had neither been registered with the Anganwadi nor with the ANM. There is only one ASHA in the panchayat and she too is not able to cover this hamlet. On the day of the visit, there were at least five people with fever, but no medicines were available.

Let us go through some views on PTGs expressed by the health officials present at the meeting:

"They don't care for their children and women so they don't bring them for immunization!"

"They don't care about their own health therefore there is so much illness and death amongst them!"



**In the light of the DPM's visit, do you think the above statements are true?
What are the reasons due to which the people of Pandripani community not able to access health services?
Can the District Health Plan be made to address these?**

3. STRATEGIES FOR ADDRESSING SPECIAL NEEDS OF PTGs

1. ASSESSING THE HEALTH STATUS OF THE PTGs AND THEIR ACCESS TO HEALTH SERVICES

Collection of Baseline information- Each block and district needs to collect data on the health status of PTGs in the area. Information has to cover nutritional status of children and adults, access to health programmes like immunization coverage, institutional delivery, ASHA etc, access to food programmes like ICDS, Mid day meal, ration. There has to be regular collection of data on deaths.

In all health programmes and national disease control programmes like TB, Leprosy it is important to track the number of PTGs who are participating.

2. IMPROVING HEALTH SERVICES DELIVERY

Universal coverage of services/schemes regardless of population norms - PTG habitations will mostly not come under the population norms for various services. But services like immunization, handpump for safe drinking water, ICDS center, bednets, ASHA from the PTG, essential drugs, etc have to be made available to the PTG hamlets regardless of their non-adherence to existing population norms. Therefore in the district plan, special provisions have to be made for universal coverage for PTGs for any programme which is planned. For this population norms need to be dropped to the minimum possible.

Provision of free health services- For such a vulnerable group, all services have to be provided free of cost. Otherwise these communities will be unable to access them. A PTG health fund can be constituted at the PHC and CHC of areas which have PTGs. All expenditure, including, medicines and investigations not available at the facility, food and transport can be incurred from it.

Safe delivery- In order to promote institutional deliveries, special provisions for referral transport, food and medicines has to be made even beyond the provisions of JSY. A separate fund needs to be kept to cover the expenses of institutional deliveries. Along with this is important to train the traditional birth attendants of these hamlets. delivery as an interim option. Let them gain confidence in the modern system before they are brought to the institution.

Immunization- While formulating the immunization plan at the block level, regular immunization sessions have to be planned for the PTG hamlets even if the ANM has to visit them separately and for less number of beneficiaries.

ASHA- It is important to know whether there an ASHA catering to the PTG hamlet and more importantly whether she herself from the PTG? If not then it will be necessary to make provisions for an ASHA in the hamlet. Training for the use of drug kits and timely replenishment also are critical for such areas.

Every PTG hamlet should be sanctioned an ASHA drawn from the PTG and a facilitator who is sympathetic to them drawn from the nearby cluster of village. A PTG ASHA should be allowed, even if the hamlet is only thirty or forty persons big. A special district task force should train, support and supervise these PTG ASHAs. It is worth investing in a separate NGO run programme in each district just to attend to the PTGs. But it should be a special NGO with a long track record of working well in these communities, and which has the ability to monitor its field staff. Given the difficult conditions of work, there would be a need to allow the NGO considerable flexibility in recruiting motivated local programme managers and paying them whatever it takes to implement the programme. The tribal sub-plan could thus have an ASHA sub-plan for PTG groups.

These ASHAs and their facilitator should have a higher level of on the job training and local camp based training so that they are able to provide a higher level of service delivery.

Referral transport- Special arrangements need to be made for referral transport from the PTG hamlet to the nearest health facility. For this, first, a mapping of PTG hamlets has to be done.

Mobile medical units (MMU) - MMUs can be used to effectively cover remote PTG hamlets. They can have a roster whereby they cover such hamlets. The dates/days of visit has to be well publicized in these hamlets so that the villagers are able to access the services.

Increased preparedness for epidemics- As the PTG hamlets are more susceptible to epidemics. There has to increased preparedness on the part of the block and district administration to respond to such a situation. Information channels have to be created for getting immediate information regarding outbreak of disease.

Home based neonatal care (HBNC) - As we saw earlier, IMR among the PTGs is nearly double of the rest of the population hence special attention needs to be paid. HBNC has proved to be instrumental in reducing IMR. It includes activities like frequent visits to all neonates, identifying problem in breathing (asphyxia) and infections in neonates and managing it or referring. Therefore, HBNC needs to be effectively implemented in the PTG hamlets with the help of ASHA.

3. UTILISATION OF UNTIED FUND FOR PTGs AND FORMULATION OF A PTG HEALTH PLAN AT BLOCK AND DISTRICT LEVEL

In villages with PTG population, there is a need to have a hamlet level PTG Village Health Committee which plans specifically for the PTG hamlet/village. The PTGs then will not only participate in health issues as beneficiaries but in planning, implementation and monitoring.



If a separate committee is not possible then it has to be ensured that the Village Health Committees include members from PTGs. A part of the untied fund can be kept for the benefit of the PTGs.

Sub Plans for PTGs at the Block and District level can be formulated to ensure that proper and adequate focus is given on PTGs. Implementation of this sub-plan may be handed over to an NGO or done through PTG Development Agencies.

4. ADVOCACY TO ABOLISH THE DISCRIMINATORY POPULATION POLICY

The current PTG population policy infringes on the human rights of the women belonging to the PTGs. The states which have such a policy need to reverse the policy and instead invest in the better health of the PTGs. District Health Plans can be vehicles for starting the debate on this issue.

5. LINKAGES WITH PTG DEVELOPMENT AUTHORITIES- CONVERGENCE WITH AGENCIES LOOKING AT PTGs (AGENCY, PROJECT, SCHEME, NGO)

In states like Chhattisgarh and Orissa, there are development authorities for each PTG. For e.g. Pahari Korwa Vikas Pradhikaran, Baiga Vikas Pradhikaran in Chhattisgarh. These agencies are meant to plan for and implement programmes for the development of the specific PTG. There are also separate development projects for various PTGs. It will be beneficial to involve them in district health planning to plan together and they can also provide resources.

A look at the annual plan of the Pahari Korwa Vikas Pradhikaran gives an idea of the types of activities they are involved in:

Activities planned for Pahari Korwas (Pahari Korwa Development Authority 2006-07)

	Activity	Amount allocated (Rs Lakhs)
1	Demonstration of improved crop and vegetable seeds	4.5
2	Fish breeding	18.5
3	Referral transport in case of illness/emergencies/accidents	1.2
4	Distribution of buffalo and goats	16
5	Distribution of solar lanterns	7.5
6	Electricity in 1 village	2.2
7	Land development	12.8
8	Irrigation project	3
9	Tube well and hand pump	2.7
10	Construction of bridge	2
11	Construction of road	1
12	Construction of pucca well	0.6
	Total	72

The above plan shows that the agency has planned to spend less than 1% of its budget on health and nutrition- directly. Though many of the expenditures are meant to improve livelihoods and therefore incomes and food intake this does not happen because of numerous other constraints and sometimes downright poor planning. For example, the agencies would distribute hybrid wheat seeds and fertilizer to a community which has never grown or even eaten wheat before. Even this amount did not get spent that year as funds reached late.

There is much flexibility to plan according to local needs, but experience has shown that these development authorities lack the capacity to do so. This provides an opportunity for district health planners to join forces with them for planning on health and development in an integrated manner. The district health planning process should involve these authorities for supporting specific interventions for PTGs and the District Health Action Plan should encompass the health plan and resources of these agencies. A separate health sub-plan for PTG groups which is shared and approved by both the tribal agencies working with them and the health and ICDS department and the Panchayati Raj department would certainly help addressing the problems of this section.

Also, the people working in the agency usually have a good rapport with leaders of the PTGs. They can provide the linkage between the health department and the PTGs.

6. ENSURING FOOD SECURITY

Given below are Recommendations by the Commissioners of Supreme Court on PTGs

a) Dry Rations

- Ensure the distribution of Antyodaya Anna Yojana (AAY) cards to every single family of all designated Particularly Vulnerable Tribal Groups (PTGs) as per the Supreme Court order of 2nd May 2003
- Enable tribal panchayats to run their own PDS shops, with grants of working capital from the tribal department.
- Introduce mobile ration shops in all the PTG areas, where ration dealers are unable to establish their shops, and ensure their regular distribution of food grains on fixed days coinciding with the weekly haat or tribal market.

b) Cooked Food

In Particularly Vulnerable Tribal Group areas,

- Recruit local anganwadi workers and helpers from amongst the local PTG itself.
- Sanction mini-anganwadis exclusively for PTG hamlets irrespective of their size without any ceiling of minimum population.
- Ensure that anganwadis or at least mini-anganwadis are opened in every primitive tribal hamlet.
- Ensure that only hot cooked meals are served in anganwadis cooked by PTG women's groups, mahila mandals etc. Make arrangements for the provision of supplementation of key nutrients in pockets of high malnourishment.



- Provide additional food grain quotas to ensure that all old people from should be permitted to share in the school mid-day meal without any conditions.
- Ensure that all PTGs are served by tribal hostels dedicated for their children, with majority staff, non-negotiably of care givers, and - if available- teachers, from the PTG community, as there is much higher chance that the PTG children will feel accepted and secured with them. A campaign should be run with the assistance of the tribal panchayat and village leaders, youth and women's organisations, for full enrolment of all PTG children in these homes.

c) Livelihoods and credit

- All PTG households should be given job cards under priority, and 2 members of the family entitled to get employment under National Rural Employment Guarantee Act (NREGA).
- To prevent further indebtedness, all released bonded workers should also be permitted to draw their full entitlement of grain on credit from PDS shops every month. This should be adjusted against one-third of their daily wages once NREGA works are commenced.
- Joint forest protection committees should be constituted in all PTG areas, giving full rights over non timber forest produce to these communities, and taking their active support to prevent timber mafias.
- A special task force should be created in all tribal districts to ensure time bound implementation of laws to restore land illegally appropriated from PTG members.
- Governments should abjure by law from further acquisition of land from tribal people who are designated to be 'primitive'.

d) Sensitization

- Change the school curriculum with reference to the richness of tribal culture to arrest the drop-out rate of PTG children
- From PTGs, wherever first generation high school graduates are found, recruit them to give primary school instruction in the tribal dialect, and as care givers in tribal hostels.
- Ensure full implementation of the Panchayats (Extension to Tribal Areas) Act, 1993 (PESA) in PTG areas, which give control over forests and other commons to tribal communities.
- Adopt a single-window approach to make all social security schemes to reach out PTGs through the tribal panchayats⁸

Conclusion:

Though the actual numbers of PTGs are small, addressing their needs would need a disproportionate share of the resources and efforts. Yet no health plan can be called equitable unless it addresses their needs. The stigmatization and exclusion they face should be overcome amongst planners at least, by reminding ourselves that they are the original inhabitants of this land and its wealth and it is their exploitation and their inability to adapt to an environment that the rest of us changed without their permission that is the cause of their condition today. There is a social debt that we owe them.

Addressing their needs also promotes a pro-equity value system within the planning team and the health department which is an end in itself.

⁸ Chapter on 'Primitive' Tribal Groups in Eighth Report of the Commissioners of the Supreme court: A Special report on the Most Vulnerable Social groups and their Access to Food, September 2008

Review Questions:

- 1 Who are the PTGs? In what way are they more vulnerable than the other tribal population?
- 2 Based on the evidence, what are the specific health needs that need to be addressed when we talk of PTGs?
- 3 The PTG population has been declining'. Analyse the statement
- 4 What should be the policy to arrest the decline of population amongst PTGs - Reducing the death rate or keeping the birth rate high?
- 5 What are some of the strategies for addressing special needs of PTGs

Application Question:

- 1 There are starvation deaths reported from a particularly vulnerable tribal group in your area. How will you respond to these deaths and what steps will you take to ensure food security in the area?

- 2 There is a diarrhea epidemic in the PTG area. What steps will you take as a public health worker to curb the epidemic and provide services to those affected? How can such epidemics be prevented?

Project Work:

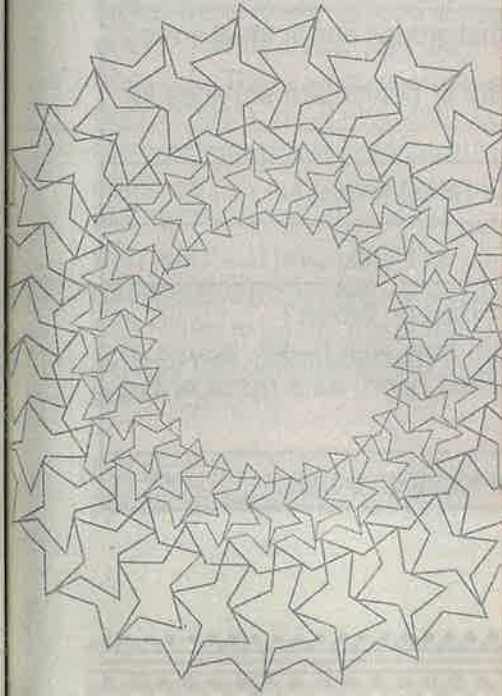
1. Visit a PTG village and have a small meeting. Ask the people about various health and nutrition programmes (atleast 10 programmes). Ask them whether they have heard about these programmes and if they have, then what do they think about their functioning?



Lesson SEVEN

Strategizing Tribal Health In Dhap

In this lesson we shall discuss:

- How to ensure that the District Health Action Plan (DHAP) includes tribal health
 - Principles to be followed while planning for tribal health in the DHAP
 - Examples of specific strategies for tribal health
- 

INTRODUCTION

In all the previous Lessons we have dealt with various issues of tribal health along with specific strategies for them. Inclusion of these issues in the District Health Action Plan (DHAP) is very important for Districts which have significant tribal population.

HOW TO ENSURE THAT THE DHAP INCLUDES TRIBAL HEALTH?

A checklist

Background Situation Analysis	Does the Background and Situation Analysis reflect status of health and healthcare of tribals in the area? Does it analyse reasons for this status? Is disaggregated data on tribals available?
Process for Plan Development	Has the planning process involved representatives (women and men) from tribal communities? Has the planning process involved departments associated with tribal welfare?
Objectives	Are there specific objectives pertaining to tribals?
Strategies and Activities Work plan	Are the strategies and activities addressing issues of tribals?
	Are the activities sensitive to tribals?
	Do they prioritise interventions with tribal groups and in tribal areas? Do they address issues of affordability of healthcare services for tribals?
	Do they involve tribals as participants (at all levels)?
	Do they involve other departments?
Monitoring and Evaluation	Do the monitoring indicators reflect impact on tribals? Does the evaluation contain a part on how well health issues of tribal communities have been intervened upon, as a result of the plan?
Budget	Do the budgetary provisions reflect a focus on tribals?



LET US LOOK AT SOME WAYS OF OPERATIONALISING THE ABOVE CHECK LIST

1. Situational Analysis of tribal health

This would include both status of their health (e.g. nutrition, mortality, sex ratio) and access to health services (e.g. % of tribals in RNTCP, JSY, immunization, ANC services, OPD/IPD, human resource in tribal area, functioning of facilities in tribal area/pockets, API of tribal area/pockets, access to safe drinking water).

To do this analysis, it is essential to have disaggregated data on tribals. This data may be collected by focus group discussions in case no other reliable data exists.

DLHS-III surveys also give particulars as disaggregated for SC and ST.

One could also use a sample survey, drawing in the data from the village health registers or ANM and AWW registers. These primary recording registers maintain a record of what clients were SC/ST etc. In contrast hospital records do not maintain this information. One could sample a number of registers to understand the pattern.

Along with this, mapping of infrastructure, human resource, and availability of basic services in tribal areas has to be done in order to identify the gaps.

Earlier all states were reporting social groups (ST/SC/OBC). This was given up for three reasons. Firstly it increased the number of data elements fourfold and therefore the burden of reporting. Secondly when tallies were made to total across sub-centers and PHCs, this became complex and a source of many errors. Thirdly there was a lot of reluctance to collect and to inform caste related information in large hospitals. There were even protests in some states. Since district data aggregates sub-center data with hospital data, no real sense could be made. Finally given these difficulties it was found that most often, the data managers computed the SC/ST figures backwards by applying fixed formulae to records of total numbers. So not only did it give a wrong picture of SC/ST data, but as a result, the entire data sets lost validity. This was why this was given up. This is a good example for merging a sense of political correctness with technical feasibility. The correct approach is to use survey data, commission sample surveys where needed and if both are not available to use well conducted qualitative studies like focus group discussions and PRAs to assess the situation. (see book 7 and lesson 9 of book 10) A few sample village plans must explore this dimension and would give a better picture than by multiplying the number of data elements in the HMIS form.

For example, a Group Discussion may be organized in 5 tribal villages, spread across a block, on what people do when they fall ill. Where do they go? What problems do they face in accessing the public health

services? How much do they have to spend to access the services? This exercise can also be done in particularly remote hamlets. Or discussions in PTG hamlets can explore the reasons for low immunization. 30 cluster sampling in tribal village may be done in order to validate data specifically for tribals.

In interaction with the community, the 'researcher' should keep in mind that she/he is there to learn and understand and not to order around or be moralistic. She/he should maintain sensitivity and respect towards the community.

If done in this spirit, community based exercises will ensure that you get a real picture of the health situation. It will also bring up area and community specific issues and you will also be able to elicit active participation from the community.

2. Participation of tribal communities in the planning process

- a) Community based exercises like focused group discussions, interviews with tribal patients etc. facilitate expression of the community of the their health priorities, the gaps in the delivery of services and the felt needs and demands of the tribal communities.
- b) Existing tribal organisations and groups (of both men and women) should be formally involved in the planning process along with Departments and Agencies dealing with tribal welfare.
- c) In tribal areas, the Gram sabhas are very significant as they represent local governance and are reminiscent of traditional tribal self governance. Organising special Gram Sabhas for Village Health Planning is an exercise which has to be done all across the District. For the purpose of DHAP, District managers and Planners can attend these special Gram Sabhas in some tribal villages (about 20) spread geographically across the district. This needs to be done for the purpose of understanding issues of tribal people, the gaps and their demand for health services in the DHAP.
- d) Creating and Analyzing Village Health Plans of tribal Village Health Committees- Though the Village health plans cannot be added up to form the DHAP they reflect the real issues facing the communities/villages and also what a possible solution may be. Creation and analysis of some plans of tribal villages can help in identifying critical issues and possible strategies.
- e) Epidemiological data is very useful too, but this is the most difficult to get. One possible source is the IDSP programme and the data from the MIS of disease control programmes. Other is to look at hospital data from a few hospitals in the area which maintain case records. Some government hospitals and some mission hospitals have the practice of good case records. The local death register, if death reporting is good in that area is also a good source. Health camps could be held in that area, of mobile medical unit visits could be strengthened to gather case data - as a sample.



3. Tribal specific objectives

The DHAP has to contain specific objectives pertaining to tribals. The objective may either reflect a specific strategy involving only tribals (e.g. Universal coverage of all PTG families with medicated bednets) or be part of every objective (e.g. Increase in institutional deliveries among tribals). Read it out to the tribal community and ask them if they would like to add or clarify or modify any objective.

4. Strategies and activities addressing issues of tribals

In the strategies and activities section of DHAP, attention should be given to:

- ensuring inclusion of tribal population in universal activities
- planning certain activities and strategies addressing specific needs of tribals.

There are certain overarching principles which need to be followed:

- a) **Prioritising tribal groups and areas-** As a result of being the most needy, tribal groups and areas have to be prioritised for any intervention. For example, in selection for 24*7 PHCs, one needs to see which PHCs cater to significant tribal population. In the disease control programmes, one would have to see whether they are able to address tribal communities. E.g. identification of TB patients amongst tribals can be strengthened by having door to door visits for identifying chest symptomatics and spot sputum sample collection there itself. This is particularly indicated where case detection is low, but malnutrition is high. Be alert that even if case detection is apparently good, but a large proportion of chest symptomatics seen in the clinic turn out to be tuberculosis, efforts to mobilize other symptomatics to come to the clinic must be strengthened. Similarly examine GIS for vector borne disease and with it the co-relation between tribal habitations and the disease. If there is a positive co-relation, focused awareness building activities are indicated.
- b) **Provision of services where they can be easily accessed by tribals-** The health services for tribals have to be provided at the level where it can be most accessible to them. For example, ASHA has to be selected at hamlet level, RCH camps etc have to be held at smaller clusters, ensuring availability of essential drugs at the village level. One can also plan for activities at a level lower than one specified by existing population norms. For example, though the norm for a sub-center is 3000 population, but for under-served tribal area with scattered habitation, one can plan for having sub-centers at lower population.
 - i) One important consideration for locating the health facility is the location of the haat or tribal market. These are weekly market days and on that day most families come from their village to the market. This makes the visit cheaper. They could thus combine it with a visit to the facility. Also the route would be safe, for there would always be travelers on it. Bus services would be better too.

- b) In some states, notably tribal Andhra Pradesh travel facilities have been enhanced to increase access. For example in some areas, there is a free bus pass provided to pregnant women or patients on chronic disease- with reimbursement to the bus operators.
- c) In other places mobile medical units reach to those villages which are far flung and which have no PHC. A fixed day per month calendar is drawn up and the mobile unit covers about 30 villages per month. Preference may be given to non PHC- haat villages and the calendar made so that the day on which the MMU arrives is the haat day.
- c) Involving tribals as participants at all levels- The strategies and activities need to see tribal people not merely as beneficiaries but as decision makers and implementers. Let us look at the various levels of participation (as explained in Book 4 Lesson 1)

Levels of Community Participation

- Participation in benefits-Immunisation, JSY etc.
- Participation in Activities-Melas, Camps, Kalajathas etc
- Participation in implementation-Selection of Mitani/Asha, attending women's committee etc, supporting malaria/filariasis prevention etc.
- Participation in monitoring- Listing the missed out children, mothers who had not ANC, reviewing the department action in outbreaks etc.
- Participation in planning- Village Health Planning, Panchayat Health Planning, Hospital Development Planning, Giving inputs to block/district/state level planning etc.
- d) **Convergence-** For health services to have an impact on tribal's health, it is essential to plan together with other departments and agencies providing support to tribals. Convergence with departments like WCD, PHED, Panchayat and tribal development agencies will ensure an integrated approach leading to better impact. In particular there should be sharing of infrastructure, human resources, vehicles to the extent possible.
- e) **Maintaining sensitivity towards tribals and refraining from victim blaming-** In planning any intervention for tribal communities, it should be taken care that no victim blaming is done and the tribal people be treated with respect. It is very common to hear statements like "These people! They cannot understand!".

For example, many a time we blame the tribals themselves for low immunization status in their hamlet. But the actual reasons for the low status are often lack of an Anganwadi center in the hamlet, highly scattered habitation, absence of a monthly immunization day, or lack of visits by the ANM. Hence planning has to be focused on correcting these gaps. Simply blaming the tribals for this low status



and thereby planning for awareness campaign on immunization won't really change anything.

Health communication has to be appropriately planned, taking into account the literacy levels and cultural context of the tribals. It can also play a major role in changing the existing prejudices and biases against tribal people.

- g) Affordability-** One of the main reasons for tribal people not accessing health services is the cost involved, which they are unable to afford. In addition to poverty, many tribal populations are still on a sustenance economy where money has a limited role. If they need money they have to go and sell some of the produce they have in the market and then make the payment. They pay their local doctors in kind- but user fees in cash is well beyond their means- even if they have some consumer durables in place. Planning for any intervention should ensure provision of free services to tribal people.

5. Monitoring and evaluation

Evaluation of the programme should take into account the impact on tribals. The number of tribal accessing the services should be seen in proportion to the tribal population. This will clearly evaluate the efficacy of the interventions for tribals.

For example, data shows that in a district, total institutional delivery is 30%, which is much higher than the state average. But we find that though the tribal population is 26%, only 5% of tribal pregnant women are coming for institutional deliveries. This shows that though the district may be doing well as compared to the whole of the State but there is hardly any impact on its tribal population.

The Monitoring indicators should clearly reflect impact on tribals.

For example,

- % of ST women with children less than one year who had an institutional delivery/skilled birth assistance.

- % of tribal malnourished children whose families report that ASHA or AWW or anyone else had done referral/counseling.

- % of STs in OPD of the PHC/CHC.

- Proportion of ASHAs selected/trained who are from ST community.

- % of TB cases who are from the tribal community.

This above information should come from surveys and from facility registers. In addition semi quantitative information can be got from focus group discussions. It also helps to look at patterns of health outcomes and service delivery outputs in relation to habitations and villages. If the same GIS also marks out the tribal habitations and hamlets, by overlaying the former over the latter, a clear picture of the problem areas and its relationship to tribal communities can be seen. Community monitoring and village health planning would also provide useful data.

In addition to the impact of the interventions on tribal health, the evaluation process has to take into account experiences of tribals during implementation of the interventions and take cognizance of denial of health rights of tribals.

6. Budget

The DHAP budget needs to ensure the following:

a) The budget for health of tribal population must be at least in proportion to the tribal population of the area. In fact, bridging service gaps in tribal areas will require even higher investments. E.g. Doctors and ANM need to be given incentives, selection and training of ASHA at hamlet level will involve higher cost than if she was at a population of 1000.

The commitment to improving tribal health in the district has to be reflected in the budget. E.g. if your DHAP budget amounts to 30 Crore, and your district has 20% tribal population then at least 6 Crore will should be spent on interventions directly impacting the tribals.

b) The excess expenditure cannot come from drugs which would be proportionate to the population. Nor from equipment or supplies. Excess expenditure would therefore come largely from deploying more human resources in these areas and from more infrastructure. The density of facilities and of human resource deployment should be more than for non tribal areas.

Human resources deployment faces the challenge of attracting and retaining skilled service providers in such areas. The reasons for this situation fall into two broad categories. Firstly the economic: There is a substantial loss on income in working in rural and remote areas. Children's education, transport to town, often having to maintain two houses, not being able to do private practice and so on. The second and more important reason is the professional and social isolation that the service provider faces.

Many ways have been tried to overcome these two constraints, but only some are successful and that too seldom as a stand alone intervention. Usually it is a package of reforms that succeeds.

Let us look at each category of such measures and assess their potential in different contexts to overcome one or both of these constraints.

- i) Financial Incentives. These help improve morale, but seldom solve the problem unless they are high enough to cover the opportunity cost of loss in private practice and cost of maintaining a second residence for the family in the nearest city. They need to be high enough to succeed. However, let whatever can be sanctioned, be sanctioned and ensure that it is through the Rogi Kalyan Samiti or panchayat and is paid promptly and with dignity.



- ii) Non financial incentives: accommodation, preferably and if needed at two sites is valuable. Increments in pay, promotion earlier, more marks in the PG examination, reserved seats for PG- all can have very positive impact in getting service providers to opt to work in tribal areas.
- iii) Improved workforce environment: Arrange for a welcome to the doctor or nurse. Make sure that they are not troubled and that they see the villagers as friends. That unreasonable demands are not made from them. Also their supervisors have to be supportive. Longer days of leave, more easily provided with substitutes for short periods, which means a bigger leave reserve- is also useful. These are great measures for retaining doctors, once they have come there. Allowing doctors who are well settled and working in a tribal area- to continue there or those who volunteer to go there is another great step as is rotating doctors so that no one has to stay more than three years at a time if they have not volunteered for it. Support groups and forums for interaction and professional recognition of the rural practitioner also helps to retain skills.
- iv) Regulation through compulsory bonding can be tried. But only in some circumstances does it work- and then there is an issue of quality of such a workforce also. Still along with some of the earlier described sweeteners compulsion could work. Mandatory rural service before PG admission also works well.
- v) Perhaps the most promising and successful long term measures of all- are the educational measures. This starts by recognizing that there are persons living in tribal areas who are happy to remain there. Therefore altering the selection process allowing them for entry into educational institutions is the first step. This must go along with constructing these institutions as close as possible to their districts, and training them in sites very similar or the same as the sites where they are going to work in. Also ensuring that they are not separated much from their communities, Finally it would help considerably if we could train them in skill sets which are certified for employment only within the public service and have no ready private urban or international market. A good example of this strategy is the entire process of second ANM selection and deployment in West Bengal.(this case study could be annexed). Another example is how the rural medical assistant has been created in Assam and in Chhattisgarh. These examples can be multiplied many times over. Bridge courses by which a percent of the ANMs who are happy to be resident in these areas, could be upgraded to nurses and by which a percent of nurses could be upgraded into nurse practitioners would help create adequate nursing staff and also help reduce the crisis in lack of women medical staff in these areas. Short term courses to provide specialist skills in available medical officers is perhaps the only way by which we could make more surgical and specialist skills in these areas. And distance education supplemented by local hospital based tutoring to create specialists in family medicine- with skills to provide the entire range of first referral unit(secondary health care) level of skills for the CHCs in tribal areas is also a promising way to get specialist skills in place. This has started up recently and over 120 doctors are undergoing this course.

The single most important lesson is that the problem of lack of doctors and nurses in rural areas is not a problem that we are condemned to live with. It is a remediable problem.

The district plan should have an explicit plan for human resources in health - how to get the numbers, how to ensure their skills and performance and how to retain them there.

The district plan should also recognize that whatever is done, we would not immediately be able to get enough skilled human resources in place. So side by side with this we would require a much larger density of community health volunteers- ASHAs, Mitanins, Sahiyyas etc. There should be a minimum of one such person for every hamlet- even if a hamlet has only 20 families. And though one does not pay so many volunteers - a substantial loss of livelihood compensation for days spent on training and on surveys and on visiting the PHCs with patients - not only pregnant women etc- should be budgeted for.

c) In the District Health Action Planning process it is important to integrate with other similar planning processes in the district. This will prevent any duplicate funding and ensure effective utilisation of available funds. In tribal areas, two types of major funding exist, one is the Tribal Sub-Plan (TSP) and the other is the Backward Region Growth Fund (BRGF). The areas selected for these programmes give us a checklist of tribal areas and groups in our district/block for which specific planning needs to be done in the DHAP. The DHAP should be an integral part of these programmes and vice versa. (Details in Annexure 6)

"Tribal Area Sub-Plan (under the treasury, outside the NRHM) has substantial effect in the tribal areas with additional funds for construction of Sub Centres and also additional salary support for the 2nd ANM. Most of the Sub Centres in Dungarpur (Tribal Sub Plan district) has two ANMs." Second CRM Report

d) Currently, Tribal RCH is the budget head in NRHM under which most interventions for tribal populations are planned. But this limits planning for tribal health to just provision of RCH services. The budget for tribals needs to be more broad-based as health issues of tribal people much more than that. An analysis of tribal health in some State PIP is given in Annexure 6. There should be an effort to maximize the utilization of this component. Expanding community health workers, organizing transport and access not only for delivery but for a much larger set of services, investing in training cadre available there into much higher skill levels- multiskilling- should all be booked into this component.

Strategies for finding and retaining workforce in tribal areas

1. Recruitment of staff based on local criteria
2. Alternative human resource policy like-Short medical course graduates recruited as Rural Medical Assistants in tribal PHCs and CHCs and BAMS as Medical Officers in tribal PHCs



3. Incentives for health staff to work in tribal areas
4. Multi skilling existing staff (Doctors, ANMs MPWs, Lab technicians) to increase the range of services provided
5. Opening of ANM/Nursing schools and Medical College in tribal areas

Specific Strategies as enumerated in the various lessons

Strategies for improving Tribal Nutrition

1. Making Malnutrition Socially recognized
2. Role of Nutrition education
3. Strengthening access of tribal people to Food Security Programmes
4. Strengthening local food production and consumption of diverse traditional foods
5. Convergence of government departments and active surveillance
6. Addressing Severe Acute Malnutrition through Nutrition Rehabilitation Centres

Gender

1. Improving sex ratio
2. Combating violence against women
3. ASHA as a strategy for empowering tribal women
4. Ensuring tribal women's participation in community processes of NRHM
5. Combating Anemia in tribal women
6. Combating Malnutrition in tribal women
7. Partnership with women's leadership and organisations
8. Monitoring gender mainstreaming of DHAP in tribal context
9. Preference for tribal women in health education and jobs
10. Special provisions for women workforce in tribal areas
11. Women friendly services at the facility
12. Action on laws related to women
13. Male participation and responsibility in women's health

Some strategies in improving access of tribal communities to health services

1. Assessing the health status of tribals in the area and their access to health services
2. Giving preference to tribal areas and planning to fulfil the gaps in needy area

3. Strengthening village based services
4. Alternative human resource policy
5. Multiskilling
6. Additional support for medical personnel in tribal areas
7. Opening up of Medical colleges in tribal areas
8. Integration of existing infrastructure (convergence of services) with health services
9. Mobile medical units
10. Investing in the Referral transport system
11. AYUSH
12. Public Private Partnerships (PPP)
13. Communitisation
14. Utilising Untied Funds for tribals
15. Convergence with other departments and programmes for tribal development

Planning for malaria in tribal areas

1. Reducing pool of infected/infective people through early diagnosis and complete treatment, use of primaquine in high transmission areas, presumptive treatment, use of RDTs
2. Reducing Anopheles mosquito larva population through anti-larval measures like better drainage and engineering, using oil to kill larvae in identified breeding stagnant water sites, use of larvicidal fish
3. Reducing Adult Anopheles mosquito population through indoor residual spray
4. Promoting use of Insecticide treated bednets and mosquito repellants
5. Reducing malaria related mortality through facility level treatment of complicated and uncomplicated cases
6. Malaria Surveillance through Active and Passive case detection, examination of blood smears, calculating indices of ABER, API, SPR, SfR and Pf%
7. Behavioral Change Communication (BCC) to reduce transmission
8. Planning for malaria in pregnancy
9. Implementing new diagnosis protocol in Community level early diagnosis
10. Implementing new drug protocol
11. High coverage through bednets
12. Village Level Malaria Plans
13. Use of GIS mapping along with other parameters to identify highly endemic areas and accordingly plan malaria control activities



14. The NVBDCP guidelines for commodities needed for the programme should be kept in mind.

Strategies for addressing special needs of PTGs

1. Assessing the health status of the PTGs and their access to health services
2. Improving health services delivery
3. Utilisation of untied fund for PTGs and formulation of a PTG health plan at block and district level
4. Advocacy to abolish the discriminatory population policy
5. Linkages with PTG Development Authorities- convergence with agencies looking at PTGs (Agency, Project, Scheme, NGO)
6. Ensuring food security

SUGGESTED INTERVENTIONS FOR CONFLICT-AFFECTED DISTRICTS

A. HUMAN RESOURCE DEVELOPMENT

a) *Recruitment of staff based on local criteria*

The remoteness of habitations calls for a different strategy in selecting development workers for these remote areas. The effort should be to select locally resident youth and women and develop them into competent teachers and health workers. The approach should be an incremental one where locally resident women and youth, even if under qualified, are preferred and developed over time to become good professionals.

b) *Incentives*

The Chhattisgarh Rural Medical Corps referred to above proposes a host of incentive which could be adopted by other States for the LWE areas. The Madhya Pradesh policy of providing financial support to girls undergoing nursing training, in lieu of which they would sign a bond for service in the public sector for seven years (Swalamban Yojana), states, could select SC/ST girls for nursing training from these areas.

c) *Multi skilling existing staff to increase the range of services provided*

Multi-competent specialists- the Family Medicine Practitioner: Multi-skill doctors so that they could

provide all the required services at the FRU level. In order to fulfill the need for specialists at the FRU level, a Family Medicine training programme appropriate for NRHM, is being developed in a two phase approach. The first phase has been approved by MOHFW and states have begun to recruit candidates, through NRHM funds. A second phase of this programme consists of upgrading the surgical / obstetric skills of the above trainees, by providing an additional year of skills training, in Emergency Obstetric Care (EmOC), anaesthesia and surgery which may be made available for these areas.

Multi-skilling Nurses : Based on a similar approach, it is proposed that nurses are multi-skilled to provide life saving Basic Emergency Obstetric Care services at the Primary Health Centre (PHC) level.

Multi-skilling lab technicians: District hospitals have more than one lab technician on their organogram, each for different programmes. This strategy recommends multi-skilling lab technicians so that they could undertake all the routine lab work at that health facility.

Multiskilling Male Public Health Workers (MPWs) : MPWs could be provided short term training to contribute to activities for national vector borne disease control, chlorination of wells, service as Counselors for male family planning methods etc.

B. STRENGTHENING DISTRICT HOSPITALS AND IMPROVING QUALITY OF CARE

In all districts, the District hospital is under state control and its capacity need to be enhanced to take in more patients, making up for the reduced access in those facilities that are in areas under the control of LWEs, and thus either inaccessible or not providing adequate services.

Service availability

A review of the DHAPs and the state PIPs shows that all district hospitals in the affected district, have major gaps that need to be filled, to develop their capacity to the level required by NRHM and further in the context of the conflict. As an intermediate step, a DH could first be upgraded to reach FRU status and subsequently to a full specialist hospital, which must include, in the current situation, the capacity for management of mass casualties and disasters. This would entail availability of all required specialists, as well as adequate number of nurses and other staff.

There is a very clear need for **Micro Planning** for each facility to ensure that all the gaps -human resources, infrastructure, equipment, and drugs are filled. The District Hospital must ensure services, particularly for the most vulnerable- women and children, ensuring:

- Comprehensive emergency obstetric care services for mothers and newborn, including a special care newborn unit (SCNU) -level 2



- Services for referred sick children
- RTI/STI services.
- A fully functioning operation theatre and a blood transfusion facility. (Current availability of blood storage facilities are limited at 9.2% only and approval of blood storage facilities and banks needs to be accelerated.)
- Adolescent reproductive and sexual health (ARSH) clinics operationalized, with a multipurpose counsellor and a staff nurse, who would be trained to provide all services including the management of STI/RTI, emergency contraception and other family planning services, as well as comprehensive abortion care services
- Support services must be ensured at the district hospital including, quality laboratory including semi-auto analyzer, X-Ray, ECG, ultrasound must be ensured.

C. ENHANCED AVAILABILITY OF DRUGS

Functioning health systems are critically dependent on human resources and the availability of drugs, supplies and equipment.

Under the LWE Initiative, states should ensure that the following steps are taken to ensure improved drug supplies, without which the HRs developed, would not make a difference:

- List of essential drugs and equipment to be prepared
- A rate contract fixed
- District ware houses for drugs would be established
- A follow up system to ensure that drug indents would be sent by a fixed date each month- to be followed up as a process indicator by the District Monitoring team

D. ANM TRAINING SCHOOLS IN AT LEAST ONE DISTRICT OF THE LWE DISTRICT AND TAGGING ADJOINING DISTRICTS

Once District Hospitals are well staffed, ANM training schools could be established attached to these institutions as they would have sufficient case load for providing competency based training. ANM training could be built in as an incentive for ASHAs performing well, who could undergo a bridge course.

E. COMMUNITY BASED CARE INCREASED TO HIGHER LEVELS OF EFFECTIVENESS

Enhanced community participation in health is essential for sustainable change and particularly so in the context of the LWE district. There is a clear need to "build trust with communities". The strategy prioritizes community participation as a key means of peace-building in health.

F. IMPROVED OUT-REACH SERVICES, TRANSPORT AND REFERRAL

Mobile Medical Units

In order to increase access to primary care services, the number of Mobile Medical Units could be increased to one per block from the current coverage of one per district. The MMUs could be equipped with adequate diagnostic facilities such as a semi-auto analyzer, equipment, drugs and supplies.

Strengthening referral

Referral services would be strengthened with ambulance pick up points at community defined health facilities, suitable for transit points. These waiting areas would be provided with adequate facilities for a waiting area, including floor mats, water supply, toilets etc. Telephone connectivity for all ambulance pick up points, health facilities and MMU, ambulance would be enhanced. Telephone facilities / mobiles would be provided to relevant health staff such as doctors, ANMs who undertake field travel to enable timely communication.



Review Questions:

1. In what ways can tribal health be adequately addresses in the District health Action Plan?
2. What are some of the ways to ensure participation of tribal communities in the planning process?
3. What are some of the overarching principles which need to be kept in mind for devising interventions for tribal health?
4. What are the major programmes from which resources can be accessed for improving healthcare in tribal areas?

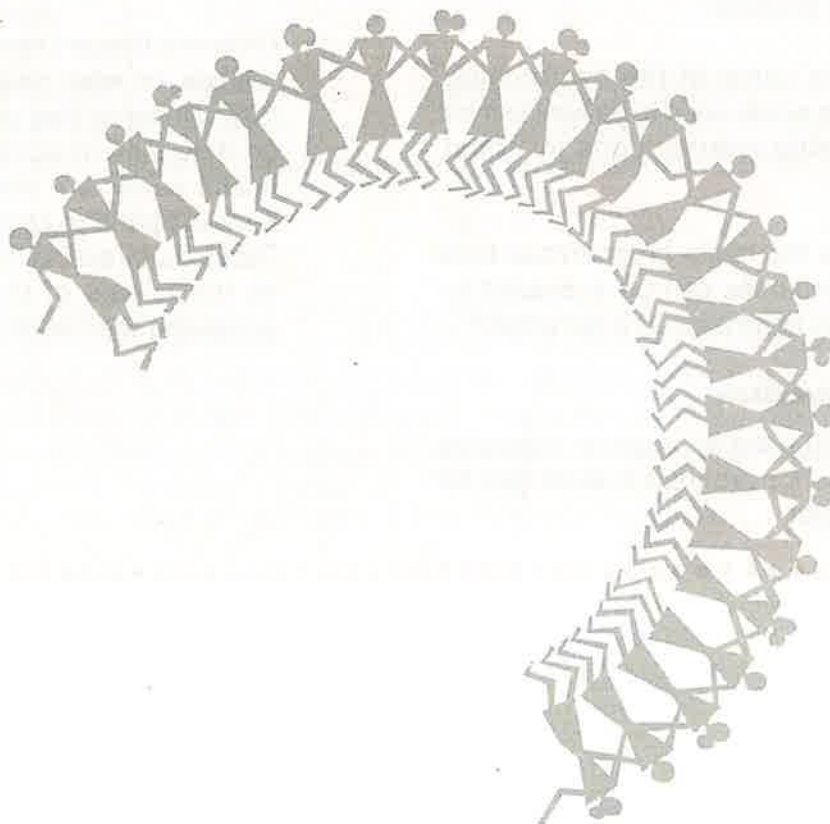
Application Question:

1. Decide 10 most appropriate indicators for measuring progress in strategies for tribal health.

Project Work:

1. Collect data on Janani Suraksha Yojana (JSY) and see how many tribal beneficiaries are there. Is it in proportion to the tribal population in the area? Make a plan for increasing institutional deliveries among tribals.
2. Organise Group Discussions in 2 tribal villages, on what people do when they fall ill. Where do they go? What problems do they face in accessing the public health services? How much do they have to spend to access the services? Plan for addressing the problems faced by the tribals of these villages in accessing the health services.

NOTES





Lesson 1: Understanding the Tribal Situation

Annual report 2008-09, Ministry of Tribal Affairs, GOI

C.R. Bijoy, History of Discrimination, Conflict, and Resistance

Prasad, Archana, Centre for Jawaharlal Nehru Studies, Jamia Millia Islamia; Health for All and Tribal Development: Presentation made at workshop on "Tribal Health in India", National Health Assembly.

Prasad, Archana 'Tribals, Dikus, and the Vision of a Golden Age', in Our Pasts III (Part 1), New Delhi: National Council for Educational Research and Training, 39-50, 2008

Mohanty B. Displacement and Rehabilitation of Tribals, Economic & Political Weekly March 26, 2005

MFC and JSA joint report, 'Where there can go no doctor.....'- Report of a preliminary visit to assess the Public health situation in Dantewada, Chhattisgarh, 2007

Devi, Mahashweta, 'Year of Birth-1871'. India Together. March 2002 <http://www.indiatogether.org/bhasha/budhan/birth1871.htm>

National Health Systems Resource Center, New Delhi, 'Mainstreaming AYUSH and revitalising local health traditions under NRHM: A Health systems perspective', 2009

Lesson 2 : Fighting Mal-nutrition in Tribal Areas

Coovadia, Hoosen M ; Coutsoudis, Anna, et al. Child Health Research-Foundation for improving child health, Global Forum for Health Research. 2002

Khera, Reetika. Starvation Deaths and "Primitive Tribal Groups", Economic and Political Weekly. December 27, 2008

Jain, Sachin. Poverty, migration and national rural employment guarantee scheme: a case study on saharia primitive tribal group in Madhya Pradesh. Right to Food Campaign. ____

Lesson 3 : Gender Issues in Tribal Context

Basu, S.K.: Health Status of Tribal Women in India. Social Change, Dec. 1993, 23(4), pg.19-39
Bhasin Veena, Status of Tribal Women in India, Department of Anthropology, Stud. Home Comm. Sci., 1(1): 1-16; 2007



Census of India 2001 <http://censusindia.gov.in/>

Chhattisgarh NRHM PIP 2009-10 http://mohfw.nic.in/NRHM/Annual_Plan_Final.htm#

Fernandes W and Khatso, Gender Impact of Tribal Customary Laws in North Eastern India. 2005

Rao VG et al, Intestinal parasitic infections, anaemia and undernutrition among tribal adolescents of Madhya Pradesh, Indian Journal of Community Medicine. 2003 Jan-Mar;28(1)

Singh, Amar Kumar & C., Rajyalakshmi: Status of Tribal Women in India. Social Change. Dec. 1993. 23(4). p.3-18)

Lesson 4 : Healthcare Services in Tribal

Areas Special issues in access to healthcare to in Tribal areas

Barnett, Sarah; Nirmala Nair; Prasanta Tripathy; Jo Borghi; Suchitra Rath and Anthony Costello. A prospective key informant surveillance system to measure maternal mortality – findings from indigenous populations in Jharkhand and Orissa, India, BMC Pregnancy Childbirth. 8: 6, 2008

Jan Swasthya Abhiyan People's Rural Health Watch Report, 'Health Services and the National Rural health mission', March, 2008

Kate and Lingojwar. Epidemiology of the sickle cell disorder in the state of Maharashtra, Int J Hum Genet. 2002

Maternal and PeriNatal Death Enquiry and Response, UNICEF http://www.unicef.org/india/MAPEDIR-Maternal_and_Perinatal_Death_Inquiry_and_Response-India.pdf

Melghat Health and Nutrition Action Plan, NRHM, Amravati District

MOHFW. GOI. CMS for German Technical Cooperation (GTZ. Rapid Assessment of the Functionality of FRUs and 24x7 PHCs in Chattisgarh. _____

NFHS III <http://www.nfhsindia.org/nfhs3.html>

Lesson 5 : Malaria in Tribal areas

Breman, JG. The Ears of the Hippopotamus: Manifestations, Determinants, and Estimates of the Malaria Burden. The American Society of Tropical Medicine and Hygiene. 2001

'Burden of malaria in pregnancy (MiP) in Chhattisgarh State, India', Presented at International Symposium on Tribal Health 27 Feb to 1 Mar 2009, RMRCT (ICMR) Jabalpur

National Drug Policy on Malaria. 2008 Directorate of National Vector Borne Disease Control Programme
http://www.whoindia.org/LinkFiles/Malaria_Malaria_drug-policy-08.pdf

Presentations made at the 'Consultation on Re-visiting Issues in Falciparum Malaria', Jan Swasthya Sahyog Hospital and Health Centre, Ganiyari, Bilaspur, Chhattisgarh, 20th and 21st February 2009

Sharma, VP; Kondrashin AV. Mapping Malaria in Asia and the Pacific (draft) Report of a WHO Technical Consultation, 14-15 Sep 2006

Operational Manual for Implementation of Malaria Programme. 2009 Directorate of National Vector Borne Disease Control Programme

<http://nvbdcp.gov.in/Doc/malaria-operational-manual-2009.pdf>

Kumar, Ashwani; Neena Valecha; Tanu Jain and Aditya P. Dash 'Burden of Malaria in India: Retrospective and Prospective View', NIMR, Field Station, Panaji, Goa, India; NIMR, Delhi, India, American Journal of Tropical Medicine and Hygiene 77(Suppl 6), 2007, pp. 69-78

Lesson 6 : Particularly Vulnerable Tribal Groups: Special Needs

Biswas, Ranjan Kumar and A.K. Kapoor, Kamla-Raj. A Study on Mortality Among Saharia – A Primitive Tribe of Madhya Pradesh. Anthropologist, 5(4): 283-290. 2003

Chakma, T; P.K. Meshram; P.V. Rao; S. B. Singh and A. Kavishwar, Nutritional Status of Baiga – A Primitive Tribe of Madhya Pradesh, Regional Medical Research Centre for Tribals (ICMR), Anthropologist, 11(1): 39-43. 2009

Chakma, T; P.Vinay Rao; S. Pall; L.S. Kaushal; Manjula Datta and R.S. Tiwary. Survey of Pulmonary Tuberculosis in a Primitive of Madhya Pradesh, Indian Journal of Tuberculosis 43, 85-89. 1996

Chhotray, GP. ICMR Bulletin Vol.33, No.10 October, 2003

Commissioners of the Supreme Court Eighth Report: A Special report on the Most Vulnerable Social Groups and their Access to Food. September 2008

Dr. Bulliyya, G; Dr.B.Dwivedi; Mrs.G.Mallick; Mr. P.K.Jangid. Study on nutritional status of Dongria Kondh primitive tribe and Domb scheduled caste populations of Orissa. RMRC Bhubaneswar. Annual Report 2003-04. 2005



Dr. Pandey, G D and Mr R S Tiwary. Some aspects of population growth of the primitive tribes of Madhya Pradesh,. Journal of Family Welfare, Vol 46, No 2, October 2000
Dolla, C.K., Mehsram, P., Verma, V., Shrivastav, Karforma, C., Patel, M.L. and Kousal, L.S. Health and morbidity profile of Bharias-A Primitive Tribe of Madhya Pradesh. J Hum Ecol 19 (2006) 139.

Government of Jharkhand, Report, 'Survey on PTGs in Jharkhand', 2003-04

RMRC Bhubaneswar Study quoted in 'Health Status of Primitive Tribes of Orissa' ICMR Bulletin Vol.33, No.10 Oct, 2003

M, Mitra; Kumar PV; Chakrabarty S; Bharati P. Nutritional status of Kamar tribal children in Chhattisgarh, Indian Journal of Pediatrics 2007 Apr; 74(4):381-384

MV, Murhekar; Murhekar KM; Sehgal SC. Alarming prevalence of hepatitis-B infection among the Jarawas -- a primitive Negrito tribe of Andaman and Nicobar Islands, India, Journal of Viral Hepatitis, 10(3):232-233. May 2003

Paharias- Field survey by Arohan Trust, Sunderpahari, Jharkhand

Pandey, GD; R S Tiwary. Socio-cultural reproductive health practices of primitive tribes of Madhya Pradesh: some observations, Journal of Family Welfare.47(2):27-33 Oct 2001

Radhakrishna, Meena. Starvation among Particularly Vulnerable Tribal Groups, Economic & Political Weekly Vol XLIV no 18.May 2, 2009

Rao VG; Sugunan AP; Murhekar MV; Sehgal SC. Malnutrition and high childhood mortality among the Onge tribe of the Andaman and Nicobar Islands. Public Health Nutrition.; 9(1):19-25 Feb, 2006

Sharma, Sandeep et al. Socio-demographic profile of Hills Korwas of Chhattisgarh, Indian Journal of Preventive & Social Medicine, Vol 38, No.3&4, July-Dec 2007

Standing Committee on Labour and Welfare 2002, Development of Primitive Tribals Groups

Annexure

Annexure 1:

LAWS, POLICIES AND INSTRUMENTS PERTAINING TO TRIBALS

1. National Commission Scheduled Tribes

The National Commission for Scheduled Tribes was constituted on March 2004 after the Constitution (89th Amendment) Act, 2003. Earlier it was a part of the National Commission for Scheduled Castes and Scheduled Tribes, a Commission formed to promote and protect their social, educational, economic and cultural interests, special provisions were made in the Constitution for the Scheduled Castes and Scheduled, which came into being by the Constitution (Sixty- fifth Amendment) Act, 1990 notified on 8-6-1990.

The Commission consists of a Chairperson, Vice-Chairperson and the members. At least two persons from amongst the Vice Chairperson and the members should be ST and at least one other member should be a woman. All are for tenure of 3 years from the date of assuming office and will not be eligible for more than 2 terms. The Chairman has the status of Union Cabinet Minister, while V.C has the status of Minister of State and Members have the Status of Secretary to Government of India. The Union and every State Government have to consult the Commission on all major Policy matters affecting Scheduled Tribes and the commission is vested with the powers of a civil court for investigation and enquiry with the authority to-

- a. Summon and enforce attendance of any person and examine on oath;
- b. Discovery & production of any documents;
- c. Receive evidence on affidavits;
- d. Requisition any public record or copy thereof from any court or office;
- e. Issue Commissions for examination of witnesses and documents; and
- f. Any matter which President, by rule, may determine.

Functions of the Commission

(Under Clause (5) of Art. 338A)

1. To investigate & Monitor matters relating to Safeguards provided for STs under the Constitution or



under other laws or under Govt. Order, to evaluate the working of such Safeguards.

2. To inquire into specific complaints relating to Rights & Safeguards of STs;
3. To participate and advise in the Planning Process relating to Socio-economic development of STs, and to evaluate the progress of their development under the Union and any State;
4. To submit report to the President annually and at such other times as the Commission may deem fit, upon/ working of Safeguards, Measures required for effective implementation of Programmes/ Schemes relating to Welfare and Socio-economic development of STs;
5. To discharge such other functions in relation to STs as the President may, subject to the provisions of any law made by Parliament, by rule specify;
6. The Commission would also discharge the following other functions in relation to the protection, welfare and development & advancement of the Scheduled Tribes, namely:-
 - (i) Measures that need to be taken over conferring ownership rights in respect of minor forest produce to the Scheduled Tribes living in forest areas.
 - (ii) Measures to be taken to safeguard rights to the Tribal Communities over mineral resources, water resources etc. as per law.
 - (iii) Measures to be taken for the development of tribals and to work for move viable livelihood strategies.
 - (iv) Measures to be taken to improve the efficacy of relief and rehabilitation measures for tribal groups displaced by development projects.
 - (v) Measures to be taken to prevent alienation of tribal people from land and to effectively rehabilitate such people in whose case alienation has already taken place.
 - (vi) Measures to be taken to elicit maximum cooperation and involvement of Tribal Communities for protecting forests and undertaking social afforestation.
 - (vii) Measures to be taken to ensure full implementation of the Provisions of Panchayats (Extension to the Scheduled Areas) Act, 1996 (40 of 1996).
 - (viii) Measures to be taken to reduce and ultimately eliminate the practice of shifting cultivation by Tribals that lead to their continuous disempowerment and degradation of land and the environment.

2. Scheduled Areas (Ministry of Tribal Affairs, Annual Report (008-09))

As tribal communities live in a more or less contiguous area, hence an area based approach has been taken by the Government in which regulatory provisions have been made in order to protect the interests and rights of the tribals. These provisions have been made in the Fifth and Sixth Schedules of the Constitution.

Fifth Schedule Areas

6.11.5 The criteria for declaring any area as a "Scheduled Area" under the Fifth Schedule are:

- Preponderance of tribal population,
- Compactness and reasonable size of the area,
- A viable administrative entity such as a district, block or taluk, and
- Economic backwardness of the area as compared to the neighboring areas.

The specification of "Scheduled Areas" in relation to a State is by a notified order of the President, after consultation with the State Government concerned. The same applies in the case of any alteration, increase, decrease, incorporation of new areas, or rescinding any Orders relating to "Scheduled Areas".

Purpose and advantage of Scheduled Areas

6.12 Scheduled Areas have certain distinct provisions meant to protect and benefit tribals:

- (a) The Governor of a State, which has Scheduled Areas, is empowered to make regulations in respect of the following:
 - i. Prohibit or restrict transfer of land from tribals;
 - ii. Regulate the business of money lending to the members of Scheduled Tribes. In making any such regulation, the Governor may repeal or amend any Act of Parliament or of the Legislature of the State, which is applicable to the area in question.
- (b) The Governor may by public notification direct that any particular Act of Parliament or of the Legislature of the State shall not apply to a Scheduled Area or any part thereof in the State or shall apply to such area subject to such exceptions and modifications as he may specify.
- (c) The Governor of a State having Scheduled Areas therein, shall annually, or whenever so required by the President of India, make a report to the President regarding the administration of the Scheduled Areas in that State and the executive power of the Union shall extend to the giving of directions to the State as to the administration of the said area.
- (d) Tribes Advisory Councils [TAC] shall be established in States having Scheduled Areas. A TAC may also be established in any State having Scheduled Tribes, but not Scheduled Areas, on the direction of the President of India. The TAC should consist of not more than twenty members of whom, as nearly as may be, three fourth should be from the representatives of Scheduled Tribes in the Legislative Assembly of the State. The role of TAC is to advise the State Government on matters pertaining to the welfare and advancement of the Scheduled Tribes in the State, as may be referred to it by the Governor.
- (e) The Panchayats (Extension to Scheduled Areas) Act, 1996, vide which the provisions of Panchayats, contained in Part IX of the Constitution, were extended to Scheduled Areas, also contains special provisions for the benefit of Scheduled Tribes.



The Sixth Schedule

6.14.1 The Sixth Schedule of the Constitution of India under Article 244 makes provisions for the administration of tribal areas through Autonomous District/ Regional Councils in the States of Assam, Meghalaya, Mizoram and Tripura.

6.14.4 The District or Regional Councils are empowered to make rules with the approval of the Governor with regard to matters like establishment, construction or management of primary schools, dispensaries, markets, cattle ponds, ferries, fisheries, roads, road transport and water-ways in the district. The Autonomous Councils of the North Cachar Hills and Karbi Anglong have been granted additional powers to make laws with respect to other matters like secondary education, agriculture, social security and social insurance, public health and sanitation, minor irrigation etc. The Councils have also been conferred powers under the Civil Procedure Code and Criminal Procedure Code for trial of certain suits and offences, as also the powers of a revenue authority for their area for collection of revenue and taxes and other powers for the regulation and management of natural resources.

3. Panchayat (Extension) to Scheduled Areas Act (PESA) 1996

The PESA Act 1996 has been seen as a watershed Act related to tribal rights and tribal self governance.

What does the Act say?

Salient features of the Extension Act may be discussed under following heads-

Constitution and composition:

- (i) A village in scheduled areas "...shall ordinarily consist of a habitation or a group of habitations or a hamlet or a group of hamlets comprising a community and managing its affairs in accordance with traditions and customs";
- (ii) Every village shall have a gram sabha consisting of persons whose names are included in the electoral rolls for the panchayats at the village level;
- (iii) Reservation for the scheduled tribes (STs) shall not be less than half of the total number of seats at all tiers of panchayats. Reservation of tribal communities shall be on the basis of proportion to their population;
- (iv) The chairpersons at all levels of the panchayats shall be reserved for STs. In case some ST communities have no representation at intermediate or district level panchayats, the state government shall nominate such underrepresented STs but such nomination should not exceed one-tenth of the total elected members of the panchayats;

- (v) Every legislation on the panchayats in fifth scheduled area shall be in conformity with the customary law, social and religious practices and traditional management practice of the community resources.

Powers and authority of the gram sabha and panchayats: Powers, functions and authority of the gram sabha and panchayats could be classified into following categories:

Mandatory powers of the gram sabha:

- (i) A gram sabha shall be competent to safeguard and preserve the traditions and customs of people, their cultural identity, community resources and customary mode of dispute resolution;
- (ii) A gram sabha is empowered to approve plans, programmes and projects for social and economic development, to identify persons as beneficiaries under the poverty alleviation and other programmes, to give certificate of utilisation of funds for various plans and programmes.

Consulting powers:

Gram sabhas or panchayats at appropriate level would be consulted before making the acquisition of land for development projects and before resettling or rehabilitating persons affected by such projects. However, actual planning and implementation of the projects shall be co-ordinated at the state level.

Recommendatory powers: Recommendation of the gram sabha or the panchayats at appropriate level is mandatory for (a) grant of prospecting licence or mining lease for minor minerals, (b) grant for the exploitation of minor minerals by auction.

Endowment of powers to the gram sabha and panchayats by the state: With a view to ensuring that panchayats at appropriate level and the gram sabhas function as institutions of self-government (ISG) they are endowed with: to enforce prohibition or to regulate or restrict the sale and consumption of any intoxicant; ownership of minor forest produce; to prevent alienation of land; to manage village markets; to exercise control over moneylending; to exercise control over institutions and functionaries in all social sectors; to control over local plans and resources for such plans including tribal sub-plans.

Entrustment of functions: Planning and management of minor water bodies shall be entrusted to panchayats at appropriate level.

Application of cardinal principle of allocation of functions: It is mentioned in the Extension Act that state legislations which may endow panchayats with such powers and authority as may be necessary to enable them to function as ISG shall contain safeguards to ensure that panchayats at higher level do not assume the powers and authority of any panchayat at the lower level or of the gram sabha.

Replication of the pattern of the sixth schedule areas: State legislatures shall endeavour to follow the pattern of the sixth schedule to the Constitution while designing the administrative arrangements in the panchayats at district level.



Thus, the Extension Act has been an important legislative framework to be enacted by the state legislatures for the tribals to have their control and rights over natural resources and conserve and preserve their identity and culture and that too in a participatory manner through the institution of gram sabha.

The state legislatures of the states of fifth scheduled areas were required to amend their respective panchayat acts in conformity with the Extension Act before the expiry of one year, i.e., by December 23, 1997. All the states, except Bihar and Rajasthan, have amended their panchayat acts in consonance with the Extension Act before the deadline. The Rajasthan government has promulgated an ordinance on June 30, 1999, very late though, to implement the provisions of the Extension Act. The Bihar government has not amended its panchayat act in consonance with the Act.

Despite amendments to the Panchayat Acts by respective States, most states have been indifferent to its enactment and devolution of powers and authority to Gram Sabhas and Panchayats.

(Based on Pal M. 'Panchayats in Fifth Scheduled Areas', Economic and Political Weekly May 6, 2000)

4. The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006

Commonly known as the Forest Rights act, this is an extremely important legislation which focuses on rights of tribal people to most important resources namely land and forest produce. This Act was enacted by the parliament on 13th December 2006 and was notified on 31st December 2007. With notification of its rules, the Act became operational in the country from 1st January 2008.

What does the Act say?

This Act acknowledges the 'historical injustice' that the tribals faced in terms of being denied legal rights to their lands and forest resources. A large proportion of tribes inhabit areas close to forests and a big part of their lands continued to be classified as Forest lands despite being cultivated by tribal families for long periods. Tribal people were not able to get secure legal titles over the land. As a result it was very easy to harass them or take away their land altogether for commercial forestry or industrial projects. This Act seeks to provide legal right to tribal families over lands they had been possession of before the cut-off date of 13th December 2005. Any Scheduled Tribe person who was living or cultivating on a patch of forest land before this cut-off date has to be given the legal right over the land subject to maximum limit of 4 hectares. Further once the Tribal person gets the land rights, it can't be sold to anyone else but can only be inherited within family. Traditional forest dwellers other than Scheduled tribes are also eligible for such rights if they had occupied forest land for more than 75 years. Apart from individual rights over occupied forest lands, the Act also provides tribal communities rights over non-timber forest produce and for community use like grazing, firewood collection etc.

The Act lays down an empowering mechanism so that tribal people have a say in provision of forest rights. As per the Act each Gram Sabha has to constitute a Village Forests Rights Committee with adequate representation of tribes and women. The Committee receives claim applications from individuals and gives its recommendation to the Gram Sabha after verifying the claim. The Gram Sabha then sends its recommendation to the Sub-Division level committee which has members from PRIs, revenue, forest and tribal welfare departments. There is a similarly composed district level committee for handling appeals and issuing the land rights documents. The Act further empowers the Gram Sabhas to have the deciding role in allocation of any forest land for industrial purposes. The Act also says that no person can be removed from any forest land he/she is occupying until the procedure provided in the Act has been fully followed. However, most of the provisions of the Act do not apply to 'Protected Areas'. Therefore tribal communities living in Forest Sanctuaries and National Parks will still find it difficult to get any permanent rights.

Around 5 lakh tribal persons mainly in Chhattisgarh, Madhya Pradesh and Andhra Pradesh have received the rights under the Act. The number of claimants is much higher who are waiting for their claims to be processed. A large number of tribal people have not been able to file their claims due to implementation gaps. Most states have constituted the required committees but many provisions of the Act related to powers of the Gram Sabha have not been implemented. Thus, the implementation of the Act has been slow and incomplete during first two years of its notification. But the Act does hold the promise to reverse disempowerment of tribal people and address the 'historical injustice' of sustained denial of rights.

5. The Scheduled Caste and Scheduled Tribes (Prevention of atrocities) Act, 1989

This is an Act to prevent the commission of offences of atrocities against the members of the Scheduled Castes and the Scheduled Tribes, to provide for Special Courts for the trial of such offences and for the relief and rehabilitation of the victims of such offences and for matters connected therewith or incidental there to.



Annexure 2

Districts with Percentage ST Population between 25% and 50 %

	District	STATE	Top Pop Top	ST Pop	% of ST
1.	Punch	J&K	372613	149,018	39.99
2.	Rajauri		483284	160,049	33.12
3.	Chamba	Himachal Pradesh	460887	117,569	25.51
4.	Dausa	Rajasthan	1317063	353,187	26.82
5.	Udaipur		2633312	1,260,432	47.86
6.	West Kameng	Arunachal Pradesh	74599	36,951	49.53
7.	Dibang Valley		57720	26,832	46.49
8.	Lohit		143527	54,801	38.18
9.	Changlang		125422	45,351	36.16
10.	West Tripura	Tripura	1532982	387,081	25.25
11.	South Tripura		767440	289,519	37.73
12.	North Tripura		590913	150,500	25.47
13.	Kokrajhar	Assam	905764	304,985	33.67
14.	Dhemaji		571944	270,496	47.29
15.	Sahibganj	Jharkhand	927770	270,423	29.15
16.	Pakaur*		701664	312,838	44.59
17.	Dumka		1759602	701,903	39.89
18.	Ranchi		2785064	1,164,624	41.82
19.	Purbi Singhbhum		1982988	552,187	27.85
20.	Jharsuguda*	Orissa	509716	159,757	31.34
21.	Sambalpur		935613	322,770	34.50
22.	Debagarh*		274108	92,103	33.60
23.	Kendujhar		1561990	695,141	44.50
24.	Nuapada*		530690	184,221	34.71
25.	Kalahandi		1335494	382,573	28.65
26.	Koraput		1180637	585,830	49.62
27.	Koriya*	Chhattisgarh	586327	260,040	44.35
28.	Raigarh		1265529	447,703	35.38
29.	Korba*		1011823	419,889	41.50
30.	Rajnandgaon		860257	341,688	26.63
31.	Mahasamund*		860257	232,485	27.03
32.	Dhamtari *		706591	185,515	26.25
33.	Umaria*	Madhya Pradesh	515963	227,250	44.04
34.	Shahdol		1575303	700,651	44.48
35.	Sidhi		1831152	547,375	29.89
36.	Ratlam		1215393	314,704	25.89
37.	West Nimar		1529562	542,762	35.48
38.	East Nimar		1713134	508,532	29.68
39.	Betul		1395175	549,907	39.41
40.	Harda *		474416	126,322	26.63
41.	Chhindwara		1849283	641,421	34.68
42.	Seoni		1166608	429,104	36.78
43.	Panch Mahals	Gujarat	2025277	556,000	27.45
44.	Vadodara		3641802	967,393	26.56
45.	Bharuch		1370656	444,043	32.40
46.	Surat		4995174	1,408,270	28.19
47.	Navsari*		1229463	591,164	48.08
48.	Dhule	Maharashtra	1707947	443,564	25.97
49.	Gadchiroli		970294	371,696	38.31
50.	Khammam	Andhra Pradesh	2578927	682,617	26.47

Newly created districts

Annexure 3

Districts with more than 50% tribal population

S. No.	District	STATE	TOP_P	TOP_P_ST	% of STs to the total population of the district
1.	Leh (Ladakh)	J&K	117232	96,174	82.04
2.	Kargil		119307	105,377	88.32
3.	Lahul & Spiti	Himachal Pradesh	33224	24,238	72.95
4.	Kinnaur		78334	56,268	71.83
5.	Dungarpur	Rajasthan	1107643	721,487	65.14
6.	Banswara		1501589	1,085,272	72.27
7.	North	Sikkim	41030	21,772	53.06
8.	Tawang	Arunachal Pradesh	38924	29,151	74.99
9.	East Kameng		57179	49,585	86.72
10.	Papum Pare*		122003	69,007	56.56
11.	Lower Subansiri		98244	88,512	90.09
12.	Upper Subansiri		55346	49,552	89.53
13.	West Siang		103918	84,922	81.72
14.	East Siang		87397	60,420	69.13
15.	Upper Siang *		33363	26,094	78.21
16.	Tirap		100326	83,940	83.67
17.	Mon	Nagaland	260652	244,821	93.93
18.	Tuensang		414818	398,350	96.03
19.	Mokokchung		232085	217,653	93.78
20.	Zunheboto		153955	147,915	96.08
21.	Wokha		161223	153,983	95.51
22.	Dimapur *		309024	187,574	60.70
23.	Kohima		310084	280,753	90.54
24.	Phek		148195	142,977	96.48
25.	Senapati(Excl.3 Sub-divisions)	Manipur	156513	122,791	78.45
26.	Tamenglong		111499	106,349	95.38
27.	Churachandpur		227905	212,482	93.23
28.	Ukhrul		140778	134,493	95.54
29.	Chandel	Mizoram	118327	108,779	91.93
30.	Mamit*		62785	58,950	93.89
31.	Kolasib*		65960	59,221	89.78
32.	Aizawal		325676	303,641	93.23
33.	Champhai*		108392	104,924	96.80
34.	Serchhip*		53861	52,830	98.09
35.	Lunglei		137223	130,768	95.30



36.	Lawngtlai		73620	70,234	95.40
37.	Saiha*		61056	58,742	96.21
38.	Dhalai*	Tripura	307868	166,326	54.03
39.	West Garo Hills	Meghalaya	518390	397,166	76.62
40.	East Garo Hills		250582	241,916	96.54
41.	South Garo Hills*		100980	96,916	95.68
42.	West Khasi Hills		296049	290,184	98.02
43.	Ri Bhoi*		192790	167,779	87.03
44.	East Khasi Hills		660923	512,152	77.49
45.	Jaintia Hills		299108	287,049	95.97
46.	Karbi Anglong	Assam	813311	452,963	55.69
47.	North Cachar Hills		188079	128,428	68.28
48.	Lohardaga	Jharkhand	364521	203,053	55.70
49.	Gumla		1346767	920,597	68.36
50.	Pashchimi Singhbhum		2082795		53.36
51.	Sundergarh	Orissa	1830673	918,903	50.19
52.	Mayurbhanj		2223456	1,258,459	56.60
53.	Gajapati*		518837	263,476	50.78
54.	Kandhamal		648201	336,809	51.96
55.	Rayagada*		831109	463,418	55.76
56.	Nabarangapur*		1025766	564,480	55.03
57.	Malkangiri*		504198	289,538	57.43
58.	Surguja	Chhattisgarh	1972094	1,076,669	54.60
59.	Jashpur*		743160	469,953	63.24
60.	Kanker*		650934	365,031	56.08
61.	Bastar		1306673	866,488	66.31
62.	Dantewada*		719487	564,931	78.52
63.	Jhabua	Madhya Pradesh	1394561	1,211,116	86.85
64.	Dhar		1740329	948,434	54.50
65.	Barwani*		1081441	724,735	67.02
66.	Dindori*		580730	374,447	64.48
67.	Mandla		894236	511,798	57.23
68.	Dohad*	Gujarat	1636433	1,182,509	72.26
69.	Narmada *		514404	401,654	78.08
70.	The Dangs		186729	175,079	93.76
71.	Valsad		1410553	772,405	54.76
72.	Dadra & Nagar Haveli	Dadra & Nagar Haveli	220490	137,225	62.24
73.	Nandurbar*	Maharashtra	1311709	859,574	65.53
74.	Lakshadweep	Lakshadweep	60650	57,321	94.51
75.	Nicobars	A & N Islands	42068	26,565	63.15

Annexure 4

ANNEXURE : 11-A

PARTICULARLY VULNERABLE TRIBAL GROUPS AND THEIR
POPULATION IN INDIA FROM 1961 TO 2001

(Figures in actual)

States/UTs.		Name of P.T.G	1961	Population 1971	1981	1991	2001
1.		2.	3.	4.	5.	6.	7.
Andhra Pradesh	1.	Chenchu	17609	24178	28434	40869	49232
	2.	Bodo Gadaba	21840	25108	27732	33127	36078
	3.	Gutob Gadaba					
	4.	Dongria Khond	21754	34382	39408	66629	85324
	5.	Kultia Khond					
	6.	Kolam	16731	26498	21842	41254	45671
	7.	Konda Reddi	35439	42777	54685	76391	83096
	8.	Kondasavara		28189			
	9.	Bondo Porja					
	10.	Khond Porja	9350	12347	16479	24154	32669
	11.	Parengi Porja					
	12.	Thoti	546	1785	1388	3654	2074
		Total	123269	195264	189968	286078	334144
Bihar (Including Jharkhand up to 1991: only Bihar for 2001)	13.	Asur	5819	7026	7783	9623	181
	14.	Birhor	2438	3461	4377	8083	406
	15.	Birjia	4029	3628	4057	6191	17
	16.	Hill Kharia	108983	127002	141771	151634	1501
	17.	Korwa	21162	18717	219940	24871	703
	18.	Mal Paharia	45423	48636	79322	86790	4631
	19.	Parhaiya	12268	14651	24012	30421	2429
	20.	Sauria Paharia	55605	59047	39269	48761	585
	21.	Savar	1561	3548	3014	4264	420
		Total	257289	285719	325545	370638	10873
Gujarat	22.	Kolgha	-	29464	62232	82679	48419
	23.	Kathodi	-	2939	2546	4773	5820
	24.	Kotwalia	-	12902	17759	19569	21453
	25.	Padhar	-	4758	10587	15896	22421
	26.	Siddi	-	4482	5429	6336	8662
		Total	-	54545	98553	129253	106775
Jharkhand	27.	Asur					10347
	28.	Birhor					7574
	29.	Birjia					5365



States/UTs.		Name of P.T.G	1961	Population 1971	1981	1991	2001
1.		2.	3.	4.	5.	6.	7.
	30.	Hill Kharia					164022
	31.	Korwa					27177
	32.	Mal Paharia					15093
	33.	Parhaiya					20786
	34.	Sauria Paharia					31050
	35.	Savar					6004
		Total					287358
Karnataka	36.	Jenu Kuruba	3623	6656	34747	29371	29828
	37.	Koraga	6382	7620	15146	16322	16071
		Total	10005	14276	49893	45693	45899
	38.	Cholanaikayan	-	306	234	-	-
	39.	kadar	-	1120	1503	2021	2145
	40.	Kattunayakan	-	5565	8803	12155	14715
	41.	Koraga	-	1200	1098	1651	1152
	42.	Kurumba	-	1319	1283	1820	2174
		Total	-	9510	12921	1764	20186
Madhya Pradesh (including Chhattisgarh)	43.	Abujh Maria	11115	13000	15500	-	-
	44.	Baiga	-	6194	248949	317549	332936
	45.	Bharia	-	1589	1614	-	-
	46.	Birhor	513	738	561	2206	143
	47.	Hill Korwa	23605	67000	19041	-	-
	48.	Kamar	-	13600	17517	20565	2424
	49.	Sahariya	174320	207174	281816	332748	450217
		Total	209591	309295	564998	673068	785720
Maharashtra	50.	Katkari/Kathodi	-	146785	174602	202203	235022
	51.	Kolam	-	56061	118073	147843	173646
	52.	Maria Gond	-	53400	66750	-	-
		Total	-	256246	359425	350046	408668
Manipur Orissa	53.	Maram Naga	-	5123	6544	9592	1225
	54.	Chuktia bhunjia	-	-	-	-	-
	55.	Birhor	-	248	142	825	702
	56.	Bondo	-	3870	5895	7315	9378
	57.	Didayi	-	3055	1978	5471	7371
	58.	Dongria Khond	-	2676	6067	-	-
	59.	Juang	-	3181	30876	35665	41339

States/UTs.		Name of P.T.G	1961	Population 1971	1981	1991	2001
1.		2.	3.	4.	5.	6.	7.
	60.	Kharia	-	1259	1259	-	-
	61.	Kutia Kond	-	3016	4735	-	-
	62.	Lanjia saura	-	4233	8421	-	-
	63.	Lodha	-	1598	5100	7458	8905
	64.	Mankirdia	-	133	1005	1491	1050
	65.	Paudi Bhuyan	-	4424	8872	-	-
	66.	Saura	-	2845	2917	-	-
		Total	-	30528	77267	58225	68745
Rajasthan	67.	Saharia	23125	26796	40945	59810	76237
Tamil Nadu	68.	Irular	79835	89025	105757	138827	155606
	69.	Kattunayakan	6459	5042	26383	42761	45227
	70.	Kota	833	1188	604	752	925
	71.	Korumba	1174	2754	4354	4768	5498
	72.	Paniyan	4779	6093	6393	7124	9121
	73.	Toda	714	930	875	1100	1560
		Total	93794	105032	144366	195332	217937
Tripura	74.	Raing	56579	64722	84004	111606	165103
Uttar Pradesh	75.	Buksa	-	-	31807	34621	4367
(including Uttaranchal upto 1991)	76.	Raji	-	-	1087	1728	998
		Total	-	-	32894	36349	5365
Uttaranchal	77.	Buska					46771
	78.	Raji					517
		Total					47288
West Bengal	79.	Birhor	-	-	658	855	1017
	80.	Lodha	-	45906	53718	68095	84966
	81.	Toto	-	-	675	-	-
		Total		45906	55051	68950	85983
Andaman & Nicobar Islands	82.	Great Andamanese	-	-	42	32	43
	83.	Jarawa	-	-	31	89	240
	84.	Onge	-	-	97	101	96
	85.	Sentinelese	-	-	-	24	39
	86.	Shom Pen	71	212	223	131	39 8
		Total	71	212	393	377	816
All India		Grand Total	773704	1403174	2042767	2412664	2592085



Annexure 5

1. Special Central Assistance (SCA) to Tribal Sub-Plan (TSP)

The Tribal Sub-Plan strategy was launched in the Fifth Five-Year Plan in the year 1974 in order to earmark and ensure adequate flow of funds for tribal development from State plan allocations, schemes/programmes of Central Ministries/Departments, financial and development institutions.

Special Central Assistance to Tribal Sub-Plan is provided by Tribal Ministry to the State Governments as an addition to the State Plan in areas where State Plan provisions are not normally forthcoming to bring about a more rapid economic development to tribals in the States.

The SCA is released for economic development in the following areas and for the following population: -

1. Integrated tribal development Projects (ITDP) areas - ITDPs are generally contiguous areas of the size of at least tehsil or block or more in which the ST population is 50% or more of the total population. Till date 192 ITDPs have been delineated in the states of Andhra Pradesh, Assam, Bihar, Jharkhand, Gujarat, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Chhattisgarh, Maharashtra, Manipur, Orissa, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal and union territories of Andaman and Nicobar Islands and Daman and Diu. Andhra Pradesh and Orissa have opted for an Agency model under the Registration of Societies Act and the ITDPs there are known as ITD Agencies (ITDAs). The ITDPs/ITDAs are headed by Project Officer though they may be designated Project Administrators or Project Directors.

2. Modified Area Development Approach (MADA) pockets - These areas are identified pockets having 50% or more ST population with a minimum total population of 10,000. 259 such MADA pockets have been identified in the TSP states. Generally, MADA pockets do not have separate administrative structures to implement development programmes. The line Departments of the State Govt. are expected to implement development programmes in MADA pockets under the overall control of the District authorities.

3. Clusters - These are identified pockets having 50% ST population with a minimum population of 5,000. As in the case of MADA pockets, there are no separate administrative structures for Clusters. So far 82 Clusters have been identified in various TSP states.

4. Particularly Vulnerable Tribal Groups (PTGs) - PTGs are tribal communities among the STs who live in near isolation in inaccessible habitats. They are characterised by a low rate of growth of population, pre-agricultural level of technology and extremely low levels of literacy. So far 75 PTGs have been identified.

5. Dispersed tribal population - Those tribal populations which fall outside the above categories.

Given below are state-wise numbers of the above identified tribal development areas for your reference:

S. No.	States/U.T.s	No. of ITDPs/IIDAs	MADA Pockets	Clusters	Primitive Tribal Groups
1	2	3	4	5	6
1	Andhra Pradesh	8	41	17	12
2	Assam	19	-	-	-
3	Bihar incld Jharkhand	14	41	7	-
4	Gujarat	9	1	-	5
5	Himachal Pradesh	5	2	-	-
6	Jammu & Kashmir	-	-	-	-
7	Karnataka	5	-	-	2
8	Kerala	7	-	-	5
9	Madhya Pradesh incld Chhattisgarh	49	39	8	7
10	Maharashtra	16	44	24	3
11	Manipur	5	-	-	1
12	Orissa	21	46	14	13
13	Rajasthan	5	44	11	1
14	Sikkim	4	-	-	T
15	Tamil Nadu	9	-	-	6
16	Tripura	3	-	-	1
17	Uttar Pradesh	1	1	-	2
18	West Bengal	12	-	1	3
Union Territory					
19	A & N Islands	1	-	-	5
20	Daman & Diu	1	-	-	-
	Total	194	259	82	75



2. Backward Region Growth Fund (BRGF)

The BRGF covers nearly all the tribal regions. Every district under BRGF receives a fixed minimum amount of Rs 10 crore per annum. This fund can be used to supplement NRHM funds in many activities in an integrated district health plan.

Objectives

1. Bridge critical gaps in local infrastructure and other development requirements that are not being adequately met through existing inflows.
2. Strengthen, to this end Panchayat and Municipality level governance with more appropriate capacity, to facilitate participatory planning, decision making, implementation and monitoring, to reflect local felt needs.
3. Provide professional support to local bodies for planning, implementation and monitoring their plans.
4. Improve the performance and delivery of critical functions assigned to Panchayats, and counter possible efficiency and equity losses on account of inadequate local capacity.

Types of funds: BRGF consists of two funding windows-

1. A Capacity building fund of Rs 250 crore per annum
2. A substantially Untied grant of Rs 3500 crore (for 2006-07)

Ensuring the inclusion of disadvantaged groups

1. A separate sub-plan should be prepared, within the plan of each Panchayat and ULB, showing the scheme wise allocations for SC/STs
2. Schemes benefiting SC/STs should be allocated funds atleast in proportion to the population of these communities in the jurisdiction for which the plan has been prepared.
3. Amenities like schools, anganwadis, health centers etc should be provided on priority in those villages that have a substantial SC/ST population.

Given below is an example of Khammam district in order to illustrate nature of utilisation of BRGF funds.

**Annexure 6 :
Tribal RCH Component in state PIPs of Tribal States**

Khammam District

PROPOSAL FOR RELEASE OF FUNDS DURING 2007-08

District at a Glance

District	Population No.	ST Population No.	SC Population No.	IMR	Literacy %	Major thrust areas in plan
Khammam	25,78,927	6,82,617	4,26,692	59	56.90	Women and Child Welfare (Anganwadi buildings, compound wall and hostel for Girl students), Health Services (Sub center buildings, shed for 108 ambulance and sub center buildings), Veterinary Services (Travies and cattle shed and compound wall), Education (Additional class rooms, Toilets facility and compound wall), Rural Water Supply (Extension of pipeline, new drinking water bore wells and pump house), Electrification Electrification (Electrification in SC/ST locality), SC Welfare (toilets facility and compound wall), Gram Panchayat Buildings (GP buildings, toilets facility and compound wall) and Agriculture (Agricultural equipments and godowns).

Khammam was covered under RSVY and has till date drawn four installments under the earlier entitlement. The district is eligible to draw funds simultaneously from development grant subsequent to the decision conveyed during PM's review on 5-11-2007.



The Planning Process:

1. Sector-wise details of the flow of funds from schemes is provided at page 67 of the Plan. Under this national flagship programme are taken into consideration. It is also mentioned that district receives funds from NREGS, SSA, NRHM, TSC, Swajaladhara, PMGSY, Bharat Nirman and Rajiv Gandhi Vidyutikarana Yojana. Page 68 of the Plan provides description related with grants in respect of CSS.
2. Critical Gaps are provided. (Pages 64-66 of the plan). The identified critical gaps are Anganwadi centers, Health Sub-centre, School and Class rooms, Drinking water, Electrification of SC/ST habitations, Hostel for college girls and Gram Panchayat buildings.
3. The Plan was prepared based on the proposals received from the Gram Panchayats, Mandal Praja Parishads and Zila Parishad (page 73 of the Plan).
4. List of works that would be undertaken in different GP is given (pp 87-208 of the plan).
5. Proposed budget for special component plan for SCs is given at pages 77-78 of the Plan.

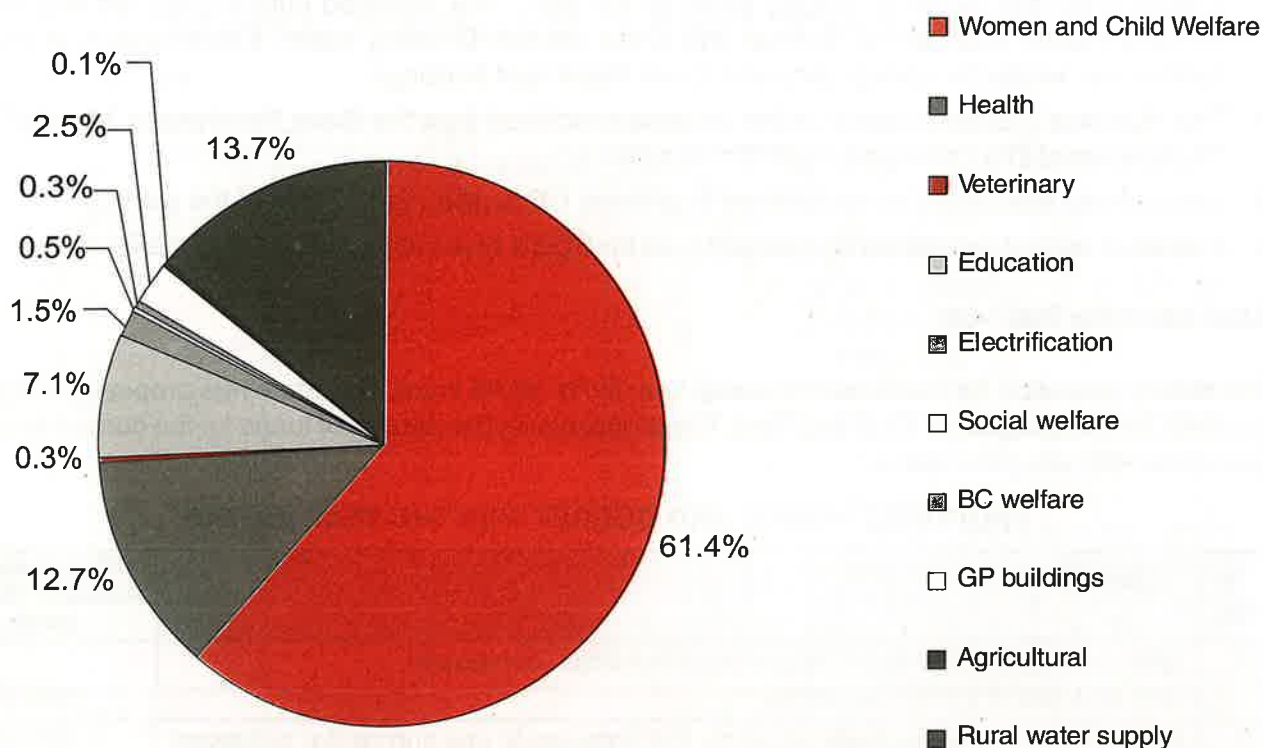
Allocation for 2007-08:

The district allocation for the current financial year is Rs. 26.76 crore. The State has proposed budget of Rs 2542.38 lakh (pages 75-76 of the Plan). The proposals for the release of funds for the current financial year (2007-08) are given below:

PROPOSED WORKS AND BUDGET FOR THE YEAR 2007-08

S. No.	Sector	Proposed Amount (Rs in lakh)
1	Women and Child Welfare (Anganwadi buildings, compound wall and hostel for Girl students)	1560.09
2	Health (Sub center buildings, shed for 108 ambulance and sub center buildings)	322.09
3	Veterinary (Travies and cattle shed and compound wall)	7.51
4	Education (Additional class rooms, Toilets facility and compound wall)	180.15
5	Electrification (Electrification in SC/ST locality)	37.38
6	Social welfare (toilets facility and compound wall)	11.80
7	BC welfare (toilets facility and compound wall)	8.30
8	GP buildings (GP buildings, toilets facility and compound wall)	64.15
9	Agricultural (Agricultural equipments and godowns)	3.50
10	Rural water supply (Extension of pipeline, new drinking water bore wells and pump house)	347.40
	Total	2542.37

Sector-wise proposed budget for 2007-08 (Rs in lakh)



The works proposed for release of funds during 2007-08 falls under the purview of BRGF Guidelines. The various steps for distribution of funds by the State Government, envisioning exercise and the planning process have been adhered to. The proposal has been approved by the State High Powered Committee. The proposal meets the criteria for release of funds. We may consider the release of 90% (Rs. 24.08 crore out of the total allocation of Rs, 26.76 crore).



S. No.	State	Tribal information	Activities	Budgeted allocations	Remarks
1.	Orissa	8.15 million people, 22.3% population	State level: • Regional workshop • IEC/BCC • research	Under Tribal RCH Budget head • Establishment of maternity waiting home: 24 lakhs • Monitoring of IMNCI: 11.52 lakhs • incentive to IMNCI worker: 13.45 lakhs • Swasthya Melas: 35.40 lakhs • Establishment of Sickle cell anemia awareness -cum- management Units in Kalahandi & Sundargarh district: 20 lakhs • Strengthening Ambulance Services in 4 KBK districts (Koraput, Rayagada, Nawarangpur, Malkangiri districts): 7.98 lakhs • District level Local magio religious healers meet: 6.28 lakhs Total: 118.63 lakhs	
			District level • 118 Swasthya mela • IEC material in colloquial languages • Maternity waiting hall in one inaccessible block of Malkangiri district and expansion of this facility in inaccessible blocks of Rayagada, Koraput, Kalahandi and Nuapada districts • RCH camps • One day Training of ISM functionaries • Awareness generation through folk media • Epidemic preparedness and management in 6 tribal districts • Information centre on health schemes and entitlements • Training of Disaris as health facility community facilities and in disease management		

S. No.	State	Tribal information	Activities	Budgeted allocations	Remarks
2.	Chhattisgarh	Tribal state (32% tribal population) with 44% of the area under forest cover.	- To fill the gap in rural health service it is proposed to increase the Number Medical personnel from the three-year medical training programme, 'Practitioners in Modern and Holistic Medicine' placed in Primary Health Centres as 'Rural Medical Assistant' to 1000 - To realize Reservation for candidates from tribal areas for nursing and ANM courses "closing of residential gap" is proposed by constructing additional rooms for new ANM in 250 Health Sub Centers - Residential accommodation for "Chhattisgarh rural medical Corp: Carder of Doctors sponsored by state to serve the remote and difficult areas" - In 10 blocks (Naxal Areas) - Perks and payments for Rural medical corps at and Nurses/ ANMs/ support staff	All the proposed budget in reflected in RCH flexipool Budget head - Rural Medical Assitants 67,850,000 - Strenthening Mitanin Programme 177,000,000 - Mobile Medical Units 18,272,000 - Support in creation Chhattisgarh Rural Medical Corps for difficult areas 73,500,000 - Distribution of Bed Nets 28,000,000 - Closing Residential and accommodation Gaps 60,000,000 In State PIP Total Budget for Tribal RCH / Vulnerable Groups is 324.622 lakhs	Many innovative initiatives for retention of Human resource in the tribal areas.



S. No.	State	Tribal information	Activities	Budgeted allocations	Remarks
			• Distribution of insecticide treated bed nets for families in high risk tribal areas • Strengthening of Mitaniin programe under ASHA through Capacity building and incentives and perks' • Increasing the Mobile medical unit facilities		
3.	J&K	11% of total population	• Complete health care package through mobile medical units • Service delivery camps • Medicine and other5 supplies for mobile medical unit • Infrastructure and honorarium support to AMCHI's (traditional healers under Tibetan system of medicine) • Special outreach basic camps in every quarter in all blocks		No separate budget allocations for tribal health. It seems activities proposed will be part of general nrhm activities
4.	Himachal Pradesh	11% of total population	• Strengthening of existing Govt. health facilities • Organizing multi specialty RCH camps through NGOs, Govt. sector, Accredited private service providers	Mobility support to specialists from Govt. Sector/ Accredited Private service provider : 6 lakhs Multi specialty RCH camps in 6 districts 33 Lakhs Total 39 lakhs	The strategies for strengthening the Govt. health facilities is not reflected in PIP neither any Budget

S. No.	State	Tribal information	Activities	Budgeted allocations	Remarks
			To attract medical officers to serve in the tribal areas incentives like PG incentives and special monetary benefits will be provided		allocation has been made for strengthening process Even though the PIP mention the PG incentives for the doctors who will serve the tribal area but the allocation for the same is not reflected in the Budget proposed for the tribal RCH
5.	Andhra Pradesh		26, 000 tribal Shandy level weekly RCH camps - Mobility For primary health centre s to conduct RCH camps - Additional Drugs for tribal Shandy clinics <i>(all the above activities are under RCH Camp activity)</i> - Construction of 38 birth waiting homes under maintenance of birth waiting homes scheme	RCH Camps 135 lakhs 38 birth waiting homes : 32 lakhs IEC and BCC activities for tribal health 67.50 lakhs (This budget is proposed as a part of Institutional Strengthening, BCC sub major heal) Total 234.50 lakhs	Focus is on RCH camps and strengthening of health services in these difficult areas is neglected. Very short term approach



S. No.	State	Tribal information	Activities	Budgeted allocations	Remarks
6.	Maharashtra	9% tribal population, 15 tribal districts out of which 5 are declared most sensitive	State has selected 35 sensitive blocks from 6 districts under Integrated Tribal Development Project (ITDP). The state government implements from state resources "Navsanjeevani Yojana"- an innovative comprehensive development package including health for tribals. Matrutva Anudan Yojana for maternal health: calcium and multivitamins besides IFA supplementaion Number of actions are taken at state level to strengthen human resource availability in these areas Activities proposed under Tribal RCH in State PIP • Prepare operational plan for Tribals • Mobility support for Health check ups of sick children at anganwadi • Providing family planning services • Provide ASHA servise • Monitoring progress,	• Prepare operational plan for Tribals: 1.5 lakhs • Mobility support for Health check ups of sick children at anganwadi : 46.92 lakhs • Special support for most sensitive and unapproachable tribal pocket of Amravati, gondia, gadchiroli districts: 12lakhs • Support for referral, medicine, investigation and follow up for tribal adolescents: Rs 5 lakhs Total : 65.42 lakhs	Well detailed PIP, reflecting all the specific initiatives for promotion of tribal health even from state allocations. Many activities proposed under tribal RCH component. Separate budget allocation proposed for four activities only and rest will be taken care as a part of general NRHM activities for which budget has been proposed.

S. No.	State	Tribal information	Activities	Budgeted allocations	Remarks
			quality and utilization of services • Intensive training for doctors, ASHAs VHSC members, KVS members, adolescents and mother groups • Special support for most sensitive and unapproachable tribal pocket of Amravati, gondia, gadchiroli districts • Support for referral, medicine, investigation and follow up for tribal adolescents		
7.	Madhya Pradesh	high tribal population of 21.4% i.e ¼ of the total tribal population of this country	Mobile health unit Diagnostic and specialty clinical services through mobile medical units in tribal area	No proposed allocations	No revised budget proposed under the Tribal component head it seemed that they have some unspent money from the previous allocations. All the activities proposed in this component will be taken care of by the funds reflected in NRHM activities. It is



S. No.	State	Tribal information	Activities	Budgeted allocations	Remarks
					unfortunate, a state with high tribal population of 21.4% i.e ¼ of the total tribal population of this country , has no focus program for this population. PIP mentions proposed initiatives that state is thinking of but there is no mention of any comprehensive scheme or program. And the worst is that they haven't taken advantage of this component where they could have pooled some resources for the this population
8.	Jharkhand	26.3 per cent of the total population of the State.	Provide tribal friendly integrated and quality primary health care Strengthening	Mapping of tribal areas : 11 lakhs Amount for tribal RCH activities at state	Very focused plan for tribal health. Innovative

S. No.	State	Tribal information	Activities	Budgeted allocations	Remarks
			community participation by community need assessment by village health committee, ensuring presence of Sahiyya and empowered village health committee through training and local culture specific BCC campaign Promote and encourage tribal system of medicine by preparing policy on tribal system of medicine, identification and recognition of experts practicing tribal medicine And training of health providers in tribal system of medicine (VIBHA) Village intervention for better health access in hard to reach areas Strengthening of 9 Tribal hospitals constructed by social welfare	level: 1 lakh Amount for tribal RCH activities at district level: 24 lakhs RCH camps for 135 Blocks: 324 lakhs VIBHA programme: 601.92 lakhs Strengthening of tribal hospitals : 747 lakhs Telemedicine unit in 5 PTG districts : 125 lakhs Monitoring progress against plan: .6 lakhs Total : 1834.52 lakhs	program for community participation. Not much has been planned for retention of health man power in tribal area



Annexure 7

Status of Scheduled Tribes at a glance from the lessons

Lesson 1 : Understanding the Tribal Situation

The table below shows the tribal percentage in various States and UTs

S.No.	State	% of STs in the State	% of STs in the states/ UTs to the total ST population of the country
1	Mizoram	94.46	1
2	Nagaland	89.15	2.1
3	Meghalaya	85.94	2.36
4	Arunachal Pradesh	64.22	0.84
5	Dadra & Nagar Haveli	62.24	0.16
6	Manipur	34.2	0.88
7	Chhatisgarh	31.76	7.85
8	Tripura	31.05	1.18
9	Jharkhand	26.3	8.4
10	Orissa	22.13	9.66
11	Madhya Pradesh	20.7	14.51
12	Sikkim	20.6	0.13
13	Gujarat	14.76	8.87
14	Rajasthan	12.56	8.42
15	Assam	12.41	3.92
16	Jammu and Kashmir	10.9	1.31
17	Maharashtra	8.85	10.17
18	Andhra Pradesh	6.59	5.96
19	Karnataka	6.55	4.11
20	West Bengal	5.5	5.23
21	Himachal Pradesh	4.02	0.29
22	Uttaranchal	3.02	0.3
23	Kerala	1.14	0.43
24	Tamil Nadu	1.04	0.77
25	Bihar	0.91	0.9
26	Uttar Pradesh	0.06	0.13

Conservative estimate of persons and tribals displaced by development projects 1951-90

Types of Projects	Tribals displaced (Lakhs)	% of Tribals in all displaced persons	% of tribals rehabilitated
Dam	63.21	38.5	25
Mines	13.30	52.2	25
Industries	3.13	25	25
Wildlife	4.5	75	22
Others	1.25	25	20.2
Total	85.39	40.9	25

Source: Mohanty B. Displacement and Rehabilitation of Tribals, EPW March 26, 2005

The trend of employment since 1961 is given below:

Sl. No.	Category of workers	General					Scheduled Tribes				
		1961	1971	1981	1991	2001	1961	1971	1981	1991	2001
1	2	3	4	5	6	7	8	9	10	11	12
1	Cultivators	52.78	43.38	41.53	39.76	33.10	68.18	57.56	54.43	54.54	50.90
2	Agri. Labours	16.71	26.32	25.16	19.66	20.30	19.17	33.04	32.67	32.69	28.40
3	House hold industry	6.38	3.55	3.99	2.56	3.90	2.47	1.03	1.42	1.04	1.8
4	Other workers	24.13	26.75	29.32	38.04	42.70	9.64	8.37	11.84	11.76	18.90

Source: Ministry of tribal affairs annual report: 2003-04

Size of land holdings of tribal people

Size of holding (hectares)	No of Holdings (in Million)	Percentage of all tribal cultivators
Upto 1 hectare	4.38	46.0
2 to 3	3.54	17.7
4 to 5	0.92	9.7
6-10	0.54	5.7
Above 10 Hect	0.14	1.4

Source: Prasad, Archana 'Tribals, Dikus, and the Vision of a Golden Age', in Our Pasts III (Part 1), New Delhi: National Council for Educational Research and Training, 39-50, 2008



Patterns of Schedule Caste & Tribe Employment (Percentage of Population)

Category of work	Schedule	Tribes
	1991	2001
Total Workers	49.3	49.0
Main Workers	42.02	33.8
Marginal Workers	7.02	15.2
Non Workers	50.7	51.0

Source: Prasad, Archana 'Tribals, Dikus, and the Vision of a Golden Age', in Our Pasts III (Part 1), New Delhi: National Council for Educational Research and Training, 39-50, 2008

Sl. No.	Category of workers	General					Scheduled Tribes				
		1961	1971	1981	1991	2001	1961	1971	1981	1991	2001
1	2	3	4	5	6	7	8	9	10	11	12
1	Cultivators	52.78	43.38	41.53	39.76	33.10	68.18	57.56	54.43	54.54	50.90
2	Agri. Labours	16.71	26.32	25.16	19.66	20.30	19.17	33.04	32.67	32.69	28.40
3	House hold industry	6.38	3.55	3.99	2.56	3.90	2.47	1.03	1.42	1.04	1.8
4	Other workers	24.13	26.75	29.32	38.04	42.70	9.64	8.37	11.84	11.76	18.90

Source: Ministry of tribal affairs annual report: 2003-04

Literacy Amongst STs and all Social Groups

Year	Schedule Tribes			All social groups		
	Male	Female	Total	Male	Female	Total
1961	13.83	3.16	8.53	40.40	15.35	28.30
1971	17.63	4.85	11.30	45.96	21.97	34.45
1981	24.52	8.04	16.35	56.38	29.76	43.57
1991	40.65	18.19	29.60	64.13	39.29	25.21
2001	59.17	34.76	47.10	75.26	53.67	64.84

Source: Registrar General of India

Gross enrolment ratios (GER) for elementary stage (I-VIII)

Figures in Percentage

Schedule Tribes				Total Population		
Year	Boys	Girls	Total	Boys	Girls	Total
1995-96	105.7	75.1	90.9	86.9	69.4	78.5
1999-2000*	99.3	70.9	85.2	90.1	72.0	81.3
2000-01*	102.5	73.5	88.0	90.3	72.4	81.6
2001-02*	99.8	77.3	88.9	90.7	73.6	82.4
2002-03*	86.7	73.9	80.5	85.4	79.3	82.5
2003-04*	90.6	81.1	86.1	87.9	81.4	84.8
2004-05*	108.5	95.8	102.4	96.9	89.9	93.5

* Provisional

Source: Ministry of Human Resource Development

Lesson 3: Gender Issues in Tribal Context

Percentage of tribal women and adolescents with health problems during pregnancy

Health problems during pregnancy	Tribal women*	Tribal adolescent mothers**
Night blindness	20.4	54.7
Blurred vision	33.6	
Convulsion (not from fever)	38.4	50.9
Swelling of legs, body or face	49	29
Excessive fatigue	49.3	45
Anemia	28.9	65.8
Vaginal bleeding	2.1	

Source:

*Maiti S. et al, Healthcare and health among tribal women in Jharkhand: A situational analysis, Stud. Tribes Tribal, 3 (1): 37-46 (2005)

**Ravishankar Dr A K et al, Early pregnancy and its association with pregnancy related health problems among tribal young women in India, Annamalai University, Tamil Nadu, India



Number of persons per 100,000

	Diabetes	Asthma	Goitre/Thyroid
Tribal Women	349	1749	753
Tribal Men	477	1973	567
Total Women	881	1696	949

Source : National Family Health Survey 3 (NFHS 3)

Child sex ratio (0-6 yrs)

	1991	2001
Total Population	940	919
Scheduled Tribe (ST)	985	972
Jharkhand ST	993	979
Orissa ST	998	979
Madhya Pradesh ST	987	979
Gujrat ST	988	966
Nagaland ST	1003	969
Chhattisgarh ST	996	998

Source: Basu, S.K.: Health Status of Tribal Women in India. Social Change, Dec. 1993, 23(4), pg.19-39.

All ages sex ratio of Scheduled Tribes

Year	ST Sex ratio
1961	987
1971	982
1981	983
1991	972
2001	978

(Basu, S.K.: Health Status of Tribal Women in India. Social Change, Dec. 1993, 23(4), pg.19-39)
Given below are the child sex ratio and overall sex ratio of certain tribes.

Sex Ratios of certain tribal groups in descending order according to child sex ratio (Census of India 2001)

	State	Tribes	Child Sex Ratio (0-6 years)	All ages Sex ratio
1	Manipur	Simte	1039	1000
2	Chhattisgarh	Gond	1002	1018
3	Andhra Pradesh	Koya	1000	1006
4	Andhra Pradesh	Gond	999	1013
5	Orissa	Bhottada	998	993
6	Chhattisgarh	Kamar	997	1008
7	Jharkhand	Kharwar	991	944
8	Orissa	Kondh	990	1027
9	Chhattisgarh	Halba	989	1035
10	Jharkhand	Ho	986	1010
11	Madhya Pradesh	Gond	986	989
12	Jharkhand	Bhunji	984	983
13	Jharkhand	Munda	983	994
14	Madhya Pradesh	Baiga	983	984
15	Maharashtra	Warli	983	1008
16	Jharkhand	Lohia	982	970
17	Orissa	Sabar	982	1008
18	Jharkhand	Santhal	980	985
19	Orissa	Gond	980	1005
20	Meghalaya	Synteg	980	1024
21	Meghalaya	Khasi	979	1071
22	Chhattisgarh	Oraon	978	1002
23	Jharkhand	Kharia	977	1026
24	Madhya Pradesh	Bhil	977	975
25	Orissa	Munda	974	982
26	Orissa	Kolha	973	990



27	Maharashtra	Bhil	972	984
28	Maharashtra	Kokna	972	984
29	Maharashtra	Thakur	972	959
30	Orissa	Saora	971	1007
31	Andhra Pradesh	Yerukulas	971	984
32	Madhya Pradesh	Kol	969	948
33	Madhya Pradesh	Sahariya	969	938
34	Maharashtra	Gond	969	964
35	Madhya Pradesh	Korku	967	959
36	Jharkhand	Oraon	966	992
37	Orissa	Santhal	955	976
38	Andhra Pradesh	Yenadia	950	957
39	Maharashtra	Koli	947	964
40	Andhra Pradesh	Sargali	944	939
41	Mizoram	Chakma	944	929
42	Manipur	Tangkhul	941	965
43	Manipur	Kacha Naga	936	961

Source: Census of India 2001

Nutritional Status

NFHS 3	Tribal		Total population	
	Women	Men	Women	Men
BMI<18.5	46.6	41.3	35.6	33.7
Anemia	68.5	39.6	55.3	24.7

Source: NFHS 3

Domestic violence data based on NFHS 3

Indicator	ST (%)	Total (%)	
% who ever experienced violence since 15yrs of age	39.3	33.5	Second highest % among social groups
% who ever experienced violence in last 12 months often or sometimes	24.5	18.9	Highest % among social the groups
Women aged 15-49yrs who have ever experienced sexual violence	10.2	8.5	Second highest % among social groups
Degree of marital control exercised by husband (3 or more specific behaviours exhibited, measured)	16	12.2	Highest % among social groups
Spousal violence-Emotional, physical and sexual violence	47	39.7	Second highest % among social groups

NFHS 3

Literacy Rate among STs

	ST Female	ST Male	All groupsFemale	All groups Male
1961	3.16	13.83	15.35	40.40
1971	4.85	17.63	21.97	45.96
1981	8.04	24.52	29.76	56.38
1991	18.19	40.65	39.29	64.13
2001	34.76	59.17	53.67	75.26

Source: Census Data of the various years



Tribal male and female literacy rates-

	ST Female	ST Male
Jharkhand	27.2	54
Chhattisgarh	39.3	65
Madhya Pradesh	28.4	53.5
Orissa	23.4	51.5
Gujrat	36	59.2
Arunachal Pradesh	40.6	58.5
Nagaland	61.3	70.3

Census of India 2001

The Gross Enrollment ratio

Sex wise Gross Enrolment Ratio of ST and Total Population Class 1-8		
	1990-91	2000-01
Total Population	62.1	58.8
Boys	76.6	67.2
Girls	47.8	49.7
ST Population	39.7	58
Boys	51.3	70.8
Girls	27.5	44.8

(Singh, Amar Kumar & C., *Rajyalakshmi: Status of Tribal Women in India. Social Change. Dec. 1993. 23(4). p.3-18*)

Women allowed to go alone to:				
	Market	Health facility	Places outside village/family	All three places
ST	49.1	42.6	34.8	30.3
Total population	51	47.7	37.7	33.4

Source: NFHS 3

Lesson 4 : Healthcare Services In Tribal Areas

Access to ANC services (NFHS 3)

S.No	ANC service	Tribal%	India%	Rank amongst all caste groups (SC, OBC, ST, General)
1	2 TT	61.9%	76.3%	Lowest
2	BP	48.7%	63.8%	Lowest
3	Urine	40.2%	58.1%	Lowest
4	Blood	44.7%	59.5%	Lowest
5	Abdomen exam	63.5%	72%	Lowest
6	Given or purchased IFA	62%	65.1%	Second lowest after OBC (61.6%)

Assistance during delivery (NFHS 3)

S.No	Assisting delivery	Tribal%	India%	Rank amongst all caste groups (SC, OBC, ST, General)
1	Doctor	17.1	35.2	Lowest
2	ANM/Nurse	7.0	10.3	Lowest
3	Dai	50.3	36.5	Highest
4	Friends	23	16.2	Highest
5	No one	1.3	0.1	Highest
6	Skilled provider	25.4	46.6	Lowest

Immunisation coverage (NFHS 3)

S.No	Immunisation	Tribal%	India%	Rank amongst all caste groups (SC, OBC, ST, General)
1	BCG	71.1	78.1	Lowest
2	Measles	46.1	58	Lowest
3	All vaccine	31.3	43.5	Lowest
4	No vaccine	11.5	5.1	Highest and Double than SC



Shortfall of health personnel in tribals areas (Rural Health Statistics, March 20007)

S. No	Health personnel	Shotfall against requirement
1	Health Worker (F)/ANM	13%
2	Health Worker (M)	35%
3	LHVs at PHCs	29%
4	Doctor at PHCs	18%
5	Surgeon at CHCs	83%
6	Obstetricians and Gynecologists at CHC	81%
7	Pediatricians at CHC	89%
8	Pharmacists at CHC and PHC	27%
9	Lab Technicians at CHC and PHC	48%
10	Staff Nurse at CHC and PHC	50%

NFHS-3 data provides the following comparison on nutritional status of children under age of 3 years.

	Under-weight	Wasted	Stunted	Severely Underweight	Severely Wasted	Severely Stunted	Moderately or Severely Anemic
ST Children	54.5	27.6	53.9	24.9	9.3	29.1	50.5
Children from all communities	42.5	19.8	48	15.8	6.4	23.7	41.1

The nutritional status of tribal adults is also considerably worse than other communities.

	Women with BMI<18.5	Men with BMI<18.5	Anemic Women	Anemic Men
ST	46.6	41.3	68.5	39.6
All communities	35.6	33.7	55.3	24.7

Another study in tribal areas of Madhya Pradesh found high prevalence of under-nutrition amongst the adolescents in terms of underweight (61.7%), stunting (51.7%) and wasting (32.8%) and anemia (82.3%).

Contrary to popular belief, there are number of gaps in breastfeeding related behaviours amongst tribes too. NFHS-3 points out some of these gaps:

	% of newborn children given Pre-lacteal feeds	% of newborn who start getting breastfed within 1 hour of birth	Average no. of months of exclusive breastfeeding	Average no. of months of predominant breastfeeding
ST	43.2	28.5	2.9	6.2
All Communities	57.2	24.5	2	5.1

Lesson 5 : Malaria in Tribal Areas

Burden of malaria in pregnancy

Region	Malaria % in ANC	Malaria % in DU	Inpatient	Association with anemia	Response of public health system
*Rajnandgaon Chhattisgarh	0.07%	2.9	0	86% of parasitemic cases reported severe or moderate anemia	Chloroquine stocked, RDTs not used regularly. Chemoprophylaxis and ITNs rarely used
*Bastar CG	2.8% with 82.4%Pf	3.8	32.35%-100%Pf		
**Jharkhand	1.8% with 62.8% Pf			Malaria significantly associated with severe anemia	Chloroquine stocked, but consistency of stock varied especially at rural sites. Chemoprophylaxis rare and no ITNs distributed or recommended by ANM



Case 1- Under-estimation of burden in urban Ahmedabad 1991-1998

Indicator	Study result	Reported by NAMP
Mean Incidence	12.2 per1000.	Mean incidence: 1.3 per 1000.
Malaria attributable mortality	22 Per million	0.3 per million.

Yadav RS, Bhatt RM et al. Annals of Tropical Medicine and Parasitology 2003
(Lesson 5: Malaria in Tribal areas)

Case 2- The JHARMAL study, Jharkhand- Quoted in Estimating the burden of malaria in India 2007. WHO SEARO.

Indicator	Study result	NVBDCP figures
SPR	23.2%	4.8%
Pf rate	70%	41%
No. of deaths	291	9

Lesson 5: Malaria in Tribal areas

Case 3- UK figures versus Chhattisgarh data

Indicator	UK (Journal of Infection 2007,54,111-121)	Chhattisgarh (National project implementation plan 2008-13 NVBDCP)
Cases per year	1500-2000 cases/year.	1,90,590 cases/year
Pf %	75%	77.5%
Deaths per year	10-20 deaths per year	3 deaths
Mortality %	1% mortality	0.00002 % mortality

Lesson 6: Particularly Vulnerable Tribal Groups: Special Needs

Extent of malnutrition among children of some PTGs-

PTG	Underweight Pre-School Children (%)	State
Kamar	90	Chhattisgarh
Onge	85	Andamans
Dongria Kondh	90	Orissa
Paharia	86	Jharkhand
Great Andamanese	85%	Andaman and Nicobar Islands
Baiga	69.7 <2SD	Madhya Pradesh
Bharias	52 <2SD	Madhya Pradesh

Source: Various studies: refer to Lesson 8: Reference and Technical Resources and Further Readings

Severe malnutrition

PTG	Severe Underweight %	State
Bondo	16	Orissa
Didaya	19	Orissa
Juanga	25.1	Orissa
Kutia Kondh	26.6	Orissa
Paharia	40	Jharkhand
Onje	10	Andaman and Nicobar Islands
Dongria kondh	35.8	Orissa
Baiga	24.3	MP

Source: Various studies: refer to Lesson 8: Reference and Technical Resources and Further Readings



Chronic energy deficiency of Adult population

	PTG	BMI below 18.5	State
	India Total	35.6 female 33.7 men	
	India ST	46.6 female 41.3 men	
	Langiya Saora	89.4	Orissa
	Kutia Kondh	88.9	Orissa
	Bharias	35.6	Madhya Pradesh
	Baigas	76	Madhya Pradesh
	Dongria Kondh	57	Orissa
Severe	Dongria Kondh adult females	25% < 16 BMI	Orissa

Source: Various studies: refer to Lesson 8: Reference and Technical Resources and Further Readings

Acknowledgements

Public Health Resource Network

Editorial Coordination:

Dr T Sundararaman, Dr Vandana Prasad, Ms Sulakshana Nandi

PHRN Editorial Advisory Committee

Anuska Kalita, Biraj Patnaik, Devanshi Chanchani, Prof. Dileep Mavlankar, Dr Rajib Dasgupta, Dr. J.P. Mishra, Dr. K.R. Antony, , Dr. Kamlesh , Dr. M.M. Pradhan, Dr. P.D.Singh, Dr. Prasanta Tripathi, Dr. Rajani Vaid, Dr. S.B. Arora, Dr. Sanjit Nayak" "Dr. Shailendra Patne, Dr. Vandana Prasad, Dr.Kumudha Aruldas, Mekhala Krishnamurthy, Nerges Mistry, , Samir Garg, Sarovar Zaidi, Sulakshana Nandi, Suranjeen Prasad, T. Sundararaman, V.R.Raman

Special Contributors to this volume

Dr Archana Prasad, Mr. Arun Srivastav, Mr. Dhananjay Kakade, Dr. Dilip Singh, Dr Ganapathy Murugan, Mr. Haldhar Mahto, Dr R.M. Bhatt, Dr. Prasanta Tripathi, Mr Rabi Parhi, Dr Ritupriya, Mr Samir Garg, Ms Sulakshana Nandi, Dr Sundararaman, Ms Saveetha, Dr Vandana Prasad

Production Coordination

Dinesh Chandra Bhatt

Networking Support Committee

Ajit Singh, Alexander Kerketta, Anuska Kalita, Arun Srivastava, Biraj Patnaik, Dinesh Bhatt, Director SHRC, Dr Rajib Dasgupta, Dr Soumya Ranjan Mishra, Dr. Ganapathy Murugan, Ifat Hamid, Dr. J.P. Mishra, Dr. K.Madan Gopal, Dr. K.R. Antony, Dr. Kamlesh Jain, Dr. M.M. Pradhan, Dr. P.D.Singh, Dr. Prasanta Tripathi, Dr. Rajani Vaid, Dr. S.B. Arora, Dr. Sanjit Nayak, Dr. Shailendra Patne, Dr.Vandana Prasad, Dr. Kumudha Aruldas, .Dr.V.R.Muraleedharan, Haldhar Mahto, HariPriya Soibam, Komal Devangan, Madhurima Nundy, Dr. Megha Khobragade, Mekhala Krishnamurthy, Nerges Mistry, Nishant Bajpai, PHRC Delhi, PHRN Bihar, PHRN Chhattisgarh, PHRN Jharkhand, PHRN Orissa, Prof. Dileep Mavlankar, Puni Khoko, Rafay Khan, Rambir Sikarwar, S.N. Patnaik, Samir Garg, Sarover Zaidi, Shampa Roy, Shilpa Deshpande, Subhasis Panda, Sulakshana Nandi, Sunil Kumar Singh, Suraj Baghel Dr.Suranjeen Prasad, Dr.T. Sundararaman, Tanwir Ahmad, VR Raman, Arun Kumar, Tarang Mishra

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 consideration of space, the editorial coordinators would like to acknowledge their contributions with many thanks!

Copyright

This material is under copyright of the Public Health Resource Network. Other authors and publishers are welcome to use any of this material provided the PHRN is acknowledged and provided it is not for commercial purposes. Those seeking to use it for commercial purposes must take prior permission from the Public Health Resource Centre, New Delhi, which is currently coordinating the PHRN.

Public Health Resource Network

A Programme of Sharing Technical Resources to Strengthen District Health Programmes

The PHRN is a civil society initiative to support district level public health practitioners. The core of the programme is an 18 month distance learning programme. This course is being organised as a partnership programme of a number of Government and Non-Governmental Organisations and resource centres.

The series will cover the following themes:

QUARTER 1 • Introduction to Public Health System • Reduction of Maternal Mortality • Accelerating Child Survival • Community Participation and Community Health Workers (with Special reference to ASHA) • Behaviour Change Communication and Training for Health	QUARTER 2 • Mainstreaming Women's Health Concerns • Community Participation beyond Community Health Workers • Disease Control Programmes • Inter-sectoral Convergence • District Health Planning
QUARTER 3 • District Health Management • Engaging the Private Sector • Legal Obligations of District Health System • Issues of Governance and Health Sector Reform	QUARTER 4 Optional Courses • Tribal Health • Urban Health • Hospital Administration • Non-communicable diseases and Mental Health • Disaster and Epidemic Management

Public Health Resource Network

5A, Jungi House, Shahpur Jat
New Delhi - 110 049

Tel : +91 11 26499564, 30631170 /71 /72

E-mail : info@phrnindia.org

website : www.phrnindia.org



Network

ces to Strengthen District Health

upport district level public health
an 18 month distance learning
is a partnership programme of a
ntal Organisations and resource

ER 2

aming Women's Health Concerns
hity Participation beyond Community
orkers
Control Programmes
toral Convergence
ealth Planning

R 4

Courses

alth
alth
dministration
nunicable diseases and Mental Health
nd Epidemic Management



15

PHRN

Tribal Health

Book
15

PUBLIC HEALTH RES



PHRN

Tribal H

