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HEALTH CARE OF TRIBAL WOMEN : A CROSS CULTURAL STUDY

A RESEARCH REPORT



BY

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PREFACE

While describing the concept of the gap between health and paramedical workers' and people's knowledge, Dr. Wele, former Assistant Director (Health Education), Gandhi Memorial Leprosy Foundation, Wardha's remarks are worth giving a thought to.

Mr. D.S. Wele, said the gap between what the disease is and what people believe it to be, creates problems. Hence, if any attempt to solve the problem is to be made, it is to be made on scientific ground as also on social ground. In addition to what is being made on therapeutically, activities that bring knowledge and awareness among the community to wipe out their existing image of the disease and enlist positive participation in implementing the program have also to be undertaken. In other words health education is as imperative as therapy. Health education certainly has the potential to offer various avenues at all levels to achieve the goal, "Health For All".

Understanding health issues of tribal women and evolving health care and educational package calls for the dual approach of handling their health and nutritional issues by considering their cultural beliefs and practices regarding the same, as well taking health education and care to them on scientific lines by making it simple.

The present study has unveiled both etic and emic aspects of health of tribal women. There are hardly any studies on this topic. This Subject was suggested in a meeting of the Commissioner T.R.& T.I., Pune. The valuable information in this report, the research tools developed, analytical reflections and interpretations will certainly be useful to researchers, academicians, Tribal Research and Training Institutes of other States, the Tribal Development Departments and ofcourse the Department of Health & Family Welfare to

evolve appropriate and culturally acceptable health care and educational policies for tribal women.

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Dr. Sharad G.Kinkar, I.A.S.
B.A., M.Sc.,Ph.D.
Commissioner,

Dr.Robin D.Tribhuvan
M.A.,M.Sc.P.G.D.M.,Ph.D
Museum Curator

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Chapter One

AN OVERVIEW OF TRIBAL HEALTH AND INFRASTRUCTURE

1.1 Tribal Health, Disease & Medicine : An Emic View

Disease has been one of the fundamental problems faced by every human society and every known society has developed ways and means to cope up with disease & created a system of medicine (Caudil William 1955 : 721)

The institution of medicine has been a part and parcel of human society since the evolution of disease. Medicine, according Oxford dictionary is defined as an art of restoring and preserving health. Tribhuwan Robin (1998 :II) has defined medicine as an art of healing, through various therapies.

Medicine can be interpreted from two dimensions namely :

- A) Bio-medical Interpretation – The biomedical angle revolves on the scientific lines of germ theory.
- B) Socio-cultural dimension – The second dimension looks at the institution of medicine as a system of beliefs and practices regarding health and disease, that are products of indigenous cultural development. That, the origin and cause of disease is attributed to wrath of gods and goddesses, breach of taboo, combination of diet, influence of hot and cold, sins in past birth etc.

Infact, Allan Young an Anthropologist has classified sickness into two categories namely, disease and illness.

- Disease, according to him is the malfunctioning of physical and psychological well being of man. Here man is viewed as a biological being.
- Illness, is the malfunctioning of psycho-social being of man. This indicates that something has gone wrong outside the patient's physical system. No wonder, when we see that a tribal who has fever sees a shaman in certain circumstances, because the cause of his fever is linked or associated with wrath of gods and goddesses. This means his relationship with gods and goddesses has been disrupted and that it needs to be solved through ritual healing. The shaman hence offers a sacrifice or a coconut to the concerned deities on behalf of the patient and mends the disrupted relationship.

Writers like Jean Camaroff (1981 : 369) and Fortes (1876) have stressed, that illness is an expression of social conflict, or cosmic disorder, revealed in disruptions in normal relation of men, spirit and nature. Illness is caused due to the disruption of cultural order.

According to Tribhuwan Robin (1998 : 300) ill-health is an intermediary stage between life and death. It signals the impurity of body, mind, soul and cultural order. It is the disruption of man's relationship with man, nature, cosmos, spirits, deities and with the supernatural world.

The process of ritual healing is defined by Tribhuwan Robin (1998 : 300) as culturally prescribed normative action or ritualized forms of behaviour of medical specialists, patients and other participants historically designed to compromise with the pathogenic agents (social, natural, spiritual, ancestral, cosmological and supernatural) so as to recreate the disrupted cultural order, to restore the health of the patient.

Hence, Tribhuwan Robin (1998 : 23), in his book captioned "Medical World of Tribals" has defined "ethnomedicine as a culturally ordered inter-relationship of medical symbols and meanings that are associated with a community's notions of illness ideology, body image and the entire set of preventive, promotive or destructive health rituals and/or actions performed by the participant actors in various healing contests, as a symbolic system, that represents the cultural whole.

Given the above theoretical background it is clear that from an (emic) insiders view, tribals have their own beliefs and practices about health, disease and medicine. We certainly do not expect an illiterate tribal to know about skeletal system, nerves, arteries, veins etc. from scientific angle. He however, has his own classification of human anatomy and physiology.

It is extremely sad to note that while planning health education policies and programs that the insiders (emic) view of tribal health is not taken into account. More importantly the health education programmes for tribal women who are shy, ignorant and not very outspoken need to be prepared to suit their psyche. We believe that while planning health service and health education programs for tribal women, it is necessary to understand their cultural physique and their beliefs and practices regarding health and disease.

1.2 Tribal Health : An etic (outsider's) view

While on one hand social scientists stress the significance of understanding health from the view point of tribals; medical scientists give importance to scientific diagnosis and treatment of disease.

The WHO (1948) has defined Health as the state of physical, mental and social being. Meaning all the three components namely physical, mental and social aspects of health are significant.

India was committed to achieving "Health For All by the year 2000 AD". The National Health Policy approved by the Parliament in 1983, accepted primary health care as the main order to ensure Health For All by 2000 AD, the Central and respective State Governments have established a vast network of rural and urban health institutions. The purpose of these institutions was to provide comprehensive health services to the people.

1.3 Health Infrastructure in Rural India

The Primary Health Care Infrastructure in rural and tribal areas has been developed as a three tier system and is based on the following population norms :-

A) Sub-Centres

A Sub-Centre is the peripheral health institution available to the rural population. It is manned by one multipurpose worker (Male) and one Multipurpose worker (Female) Auxillary Nurse Midwife. In addition, one Local Health Volunteer is entrusted with the supervision of six sub-centres, while the salary of ANM and LHV is borne by the Central Government, that of a male worker is borne by the State Government. As on 30-6-1999, there are 1,37,271 sub-centres functioning in the country, out of which only 97,757 sub-centres are funded by the Ministry of Health and Family Welfare, Government of India. The rest are funded under the Minimum Needs Program / Basic Needs Program (BMS).

B) Primary Health Centres

Primary Health Centre is the first contact point between village community and the Medical Officer. These are established and maintained by the State Government under the Minimum Needs Program (MNP). A Primary Health Centre is manned by a Medical Officer, supported by 14 paramedical staff. It acts as a referred unit for a sub-centres. It was 4-6 beds for patients. The activities of Primary Health Centre involve curative, preventive, promotive and family welfare services. As on 30-06-1999, there are 22,971 Primary Health Centres functioning in the country.

C) Community Health Centres (CHCs)

Community Health Centres are established and maintained by the State Government under MNP/BMS. It is manned by four medical specialists i.e. surgeon, Medicine, Gynecologist and a Pediatrician supported by 21 paramedical and other staff. It has 30 in-door beds,

with an Operation Theatre, X-ray, Labour Room and Laboratory facilities. It serves as a referred centre for 4 Primary Health Centres. As on 30-06-1999 there are 2,935 Community Health Centres functioning in the country.

The above mentioned health centres have certain norms as regards hilly and plain population, number of villages to be served and area to be covered. The Ministry of Health and Family Welfare, Government of India has designed the following norms.

Table No. 1.1
Population, villages and area coverage norms of Health Centres.

Centre	Population Norms		Average population served	Average number of villages served	Average rural area covered (in sq. kms.)
	Plains	Hilly Tribal Area			
Sub-Centre	5000	3000	4579	4.27	22.81
Primary Health Centre	30,000	20,000	27,364	25.55	136.31
Community Health Centre	1,20,000	80,000	2,14,000	200.07	1067.10
<i>Source : Government of India, Ministry of Health & Family Welfare</i>					

Furthermore, table number 1.2 gives manpower involved in health related activities in Government health centres in rural areas of India as on 30-06-1999.

Table No. 1.2
Manpower in Rural Health Centres in India

Sr.No	Category	Number of Manpower
1.	A.N.M.	1,34,086
2.	M.P.W. (M)	73,327
3.	H.A. (F) (LMV)	19,426
4.	Health Assistant (M)	22,265
5.	Doctors at Primary Health Centres	25,506
6.	Specialists	3,741
7.	Lab Technicians	12,709
8.	Nurse Midwife	17,673
Total		3,08,733

Source : Government of India, Ministry of Health & Family Welfare.

1.4 Health Infrastructure in Rural Maharashtra

According to the State Family Welfare Bureau, Pune, Government of Maharashtra, as on 10-7-2006, there are 10,533, Sub Centres ; 1812 Primary Health Centre ; 304 Community Health Centres ; 53 S.D.H. (50) ; 20 S.D.H. ; 206 Health posts, altogether 12,928 health centres. Table No. 1.3 presents details of districtwise health infrastructure

Table No. 1.3
Districtwise Existing Health Infrastructure in Maharashtra.

Sr. No	Dist/MNC	S.C.	PHC	RH 30	SDH 50	SDH 100	Health Post	Total
1	Raigad	288	55	10	2	1	0	356
2	Ratnagiri	378	67	8	2	0	0	455
3	Thane	492	77	9	1	2	0	581
4	Br.Mumbai MC	0	0	0	0	0	56	56
5	New Mumbai MC	0	0	0	0	0	0	0
6	Thane MC	0	0	0	0	0	9	9
7	Kalyan MC	0	0	0	0	0	8	8
8	Ulhasnagar MC	0	0	0	0	0	6	6
9	Mira Bhainder MC	0	0	0	0	0	0	0
10	Bhiwandi MC	0	0	0	0	0	5	5
11	Ahmednagar	555	97	16	2	0	0	670
12	Ahmednagar MC	0	0	0	0	0	4	4
13	Dhule	195	41	5	1	1	0	243
14	Dhule MC	0	0	0	0	0	3	3
15	Jalgaon	443	80	17	2	1	0	543
16	Jalgaon MC	0	0	0	0	0	8	8
17	Nashik	577	106	22	3	1	0	709
18	Nandurbar	293	55	8	1	0	0	357
19	Nashik MC	0	0	0	0	0	9	9
20	Malegaon MC	0	0	0	0	0	6	6
21	Pune	539	93	14	3	0	0	649
22	Solapur	431	77	10	1	1	0	520
23	Satara	400	71	12	1	1	0	485
24	Pune MC	0	0	0	0	0	14	14
25	PCMC	0	0	0	0	0	6	6
26	Solapur MC	0	0	0	0	0	13	13
27	Sangli	329	59	7	2	0	0	388
28	Sindhudurg	248	38	7	2	0	0	388
29	Kolhapur	412	73	15	1	1	0	502
30	Kolhapur MC	0	0	0	0	0	3	3
31	Sangli MC	0	0	0	0	0	19	19
32	Aurangabad	279	50	5	2	1	0	337
33	Aurangabad MC	0	0	0	0	0	7	7

Sr. No	Dist/MNC	S.C.	PHC	RH 30	SDH 50	SDH 100	Health Post	Total
34	Jalna	213	38	8	1	0	0	260
35	Parbhani	217	31	6	1	0	0	256
36	Hingoli	136	24	4	1	0	0	165
37	Beed	280	50	9	1	1	0	341
38	Nanded	377	64	10	3	1	0	455
39	Latur	250	46	7	1	1	0	305
40	Osmanabad	206	42	6	1	1	0	256
41	Nanded MC	0	0	0	0	0	4	4
42	Akola	174	30	4	0	1	0	209
43	Amravati	333	56	9	3	1	0	402
44	Buldhana	281	52	10	1	1	0	345
45	Yavatmal	435	64	14	3	0	0	516
46	Washim	154	25	7	0	0	0	186
47	Amravati MC	0	0	0	0	0	9	9
48	Akola MC	0	0	0	0	0	6	6
49	Bhandara	191	30	2	1	1	0	225
50	Chandrapur	339	58	11	2	0	0	410
51	Gadchiroli	374	45	9	3	0	0	431
52	Nagpur	303	49	9	2	0	0	363
53	Wardha	181	27	6	1	1	0	216
54	Gondia	239	42	8	1	0	0	290
55	Nagpur MC	0	0	0	0	0	11	11
	Total	10533	1812	304	53	20	206	12928

In addition to the institutions considering the tribal geographical situation in the Tribal Sub Plan area the health facilities are given in Table No. 1.4

Table No. 1.4
Health Facilities in T.S.P. Maharashtra

Sr.No	Item	Number
1.	Community Health Centres	59
2.	Primary Health Centres	312
3.	Primary Health Units (Mini P.H.Cs.)	101
4.	Mobile Health Units	52
5.	S.Cs.	2033
	Total	2557

Source : Department of Health & Family Welfare, Govt. of Maharashtra.

From table No. 1.4, it is evident that T.S.P. area of Maharashtra is equipped with 2557 health institutions, to cater to tribal health problems.

As regards manpower in the Community Health Centres, Primary Health Centres and Sub Centres is concerned, table 1.5 presents paramedical staff in rural Maharashtra is as follows :-

Table No. 1.5
Manpower in Health Centres of Rural Maharashtra

Sr.No	Health Personnel	Numbwe
1.	MMHS Class I	1177
2.	MMHS Class II	5075
3.	GSS Class I	57
4.	GSS Class II	384
5.	Health Assistants (Male)	4642
6.	Health Assistants (Female)	3586
7.	MPHW (Male)	12646
8.	MPHW (Female)	11915
9.	T.B.A	45681
Total		85163

1.5 Tribal Health Programmes

Tribal areas are generally, inaccessible due to difficult terrain. Such areas are, therefore, deprived of timely and adequate health facilities. Also, in view of the low standard of living, backwardness, poor nutrition, illiteracy and worm infections etc. , tribals are prone to various diseases. The Government is, therefore, stepping up its efforts to extend and increase adequate and timely medical facilities to the tribal areas of the State alongwith other development activities.

In order to accelerate the health coverage in the T.S.P. (Tribal Sub Plan) area, the Govt. of India has relaxed the norms for establishing health institutions in tribal areas. The revised norms are as under :

Sr. No	Institution	Population Criteria	
		Non TSP Area	TSP Area
1.	Sub Centres (SCs)	5,000	3,000
2.	Primary Health Centres (PHCs)	30,000	20,000
3.	Community Health Centres (CHCs)		
	a) Govt. of India	1,20,000	80,000
	b) State Government	1,50,000	1,00,000

In addition to the institutions, considering the local geographical situation, primary health units (Mini PHCs) and mobile health units have also been established in the hilly and difficult areas, where the population is scattered.

In the Tribal Sub Plan Areas, the health facilities, which are at present existing, are as follows: -

Sr.No.	Item	No,
i	CHCs	59
ii	PHCs	312
iii	Primary Health Units Mini (PHCs)	101
iv	Mobile Health Units	52
v	SCs	2023

The main thrust in the T.S.P. of 2007-08 would be on accelerating of the programme of construction of health institutions and executing on priority basis the programme of providing adequate health coverage to inaccessible villages in the tribal areas. The main schemes covered under the sector are as follows.

(A) State Level Schemes :

- (i) National Filaria Control Programme (State sponsored) :- This is a centrally sponsored scheme.. The outlay under this scheme is for meeting the establishment expenditure of night clinics and control units
- (ii) Jivadayi Health Programme (Purchase of ORS):In the tribal areas water borne diseases are being prevailing which causes dehydration. In order to control the incidence of diarrhoeal diseases, the Oral Dehydration Salt packets are required to be supplied. Similarly, the vitamin A is also required to prevent night blindness. The present supply from Government of India is found insufficient.

Therefore, it is proposed to provide an outlay of Rs1000.00 lakh under the Tribal Sub Plan for the year 2006-07 for these schemes.

(B) District Level Schemes :

- (i) National Malaria Eradication Programme : This scheme is being implemented in the tribal areas as a District level scheme for which an outlay of Rs 1101.80 lakh has been provided for the year 2007-08.

(ii) **Pulse Polio Immunization Program** : The Government Of India have decided to eradicate polio by 2005 A.D. Accordingly a massive Polio Immunization campaign for all children in the 0 to 5 age group was undertaken in the State . The Government Of India have provided funds required for Polio vaccine and community education. However, the State Government has to bear the cost of materials and supplies, the training program for local education etc. The campaign is being continued further for which an outlay of Rs 78.17 lakh has been provided in the year 2007-08.

(iii) **Supply of Diet facilities to indoor tribal patients in Rural Hospitals and Primary Health Centres** : It is experienced that because of non-availability of diet facilities in the Primary Health Centres and Rural hospitals in the tribal areas, patients admitted in these institutions, do not stay for even a day. These patients either have against medical advice or just run away without the knowledge of the institution in charge. A total outlay of Rs 210.16 lakh has been provided for this purpose in Tribal Sub Plan of 2007-08.

(iv) **The schemes sanctioned in 1997-98 for most vulnerable areas :**

Under Melghat pattern in the five districts (1) Thane, (2) Nashik, (3) Nandurbar, (4) Amravati & (5) Gadchiroli.

Under Melghat pattern the following schemes of health development concern and nutrition concern are implemented in the five most vulnerable Tribal districts. But these schemes are implemented in all 15 tribal districts from 2003-2004.

These schemes are also implemented in the year 2007-08. For these schemes the following outlays are provided :-

Sr. No.	Scheme	Period	District	Outlay Provided in 2005-2006
1	Providing Special Health Services in sensitive tribal areas (including rescue camp scheme)	for the whole year	Total 15 tribal districts	2795.01
2	Dai's monthly meetings	for the whole year	Total	38.99
3	Increase in medicine grants to Rural Hospital		Total	120.30

- (v) **Drishtidan Yojana** : An outlay of Rs 44.25 lakh has been earmarked for this scheme for the year 2007-08. Under this scheme it is proposed to give spectacles free of cost to cataract operated patients.
- (vi) (A) **Primary Health Centres (PHCs)** : The community health centre is the first level referral institution where the patients are referred from the Primary Health Centres under its jurisdiction for further referral services. Clinical services are also rendered by the Community Health Centre. The functioning of Primary Health Centre provides referral and curative services to the community in the villages under its jurisdiction. The Community Health Centre is established either by upgradation of Primary Health Centre or taking over dispensaries run by Municipal councils or establish at a new location.
- (B) **Sub Centres (SCs)** : In the tribal areas 2023 sub-centres have already been opened. As per the directives of the Government Of India emphasis is being given on creating infrastructure and health network. Most of these sub-centres are located in rented premises, building works of Sub-centres have been undertaken. The year 2007-08 an outlay of Rs 1064.95 lakh has been provided for construction of sub centers. For establishment of Sub-Centres an outlay of Rs 586.62 lakh has been provided for the year 2007-08.

(C) **Primary Health Centres/Sub Centres/Rural Hospitals :**

In TSP Area the outlay is provided for Establishment of Primary Health Centres (PHCs), Sub Centres (SCs) and Rural Hospitals (RHs). As well as the outlay is also provided for strengthening of PHCs and for the construction of Health Institutions.

To establish the new Health Institutions. For this the expenditure is as follows :-

Sr. No.	Item	Rural Hospital	Primary Health Centre	Sub Centres
1	Recurring Expenditure	34.42	14.28	2.22
2	Non-recurring Expenditure	10.00	6.00	0.06
3	Capital Expenditure	165.00	85.00	5.00
	Total	209.42	105.28	7.28
	i.e.	210.00	106.00	8.00

The Capital expenditure is divided in three years for the establishment of New Health Institutions is as follows :-

Sr. No.	Institution	First Year	Second Year	Third Year
1	Rural Hospital	30.00	61.00	62.00
2	PHCs	12.00	25.00	25.00
3	Sub Centres	1.60	1.70	1.70

The Outlay provided for the year 2007-08

1. Establishment of Rural Hospital - Rs. 260.50 lakhs
2. Establishment of Primary Health Centre (PHCs) - Rs. 68.55. lakhs
3. Establishment of Sub Centres (SCs) - Rs. 586.62 lakhs

An for the schemes of strengthening of Primary Health Centre Rs. 93.96 lakhs has been provided and for the schemes of maintenance and repairs of sub centres, Rs. 354.88 lakhs has been provided for the year 2007-08 in Tribal Sub Plan.

(vii) Medical Grants to Health Institutions : The cost of medicines is now increased considerably and in the tribal areas, they are mainly, available in the medical stores at the taluka head quarters Also, the purchasing capacity of the tribal community is very poor. In view of this, it was necessary to increase the supply of medicines to these institutions. Therefore, a total outlay of Rs 579.41 lakh has been provided for increase in medicinal grants in the Tribal Sub Plan for the year 2007-08.

In Tribal Sub Plan there are increase in medical grants to Health institutions are as follows and the outlay provided in the year 2004-2005 for medical grants to Health institutions are as follows :-

Table A

Sr. No.	Institution	Present Rate	Revised Rate	Increase in Rate	Outlay Provided for the 2004-2005 (Rs.in lakh)
1	Sub Centres	6000/-	8000/-	2000/-	104.32
2	PHCs	60000/-	80000/-	20000/-	283.25
3	Rural Hospitals	200000/-	300000/-	100000/-	178.30
Total					565.87

But there is no outlay for under the backlog of the schemes construction of Rural Hospital, Primary Health Centre and Sub centres as there is no backlog remain for the above district level schemes.

Thus a total outlay of Rs 13557.38 lakh has been provided in the Tribal Sub Plan of 2007-08 for this important sector.

Medical Education And Drugs

An outlay of Rs. 72.90 lakh for construction, enhancement, repairs and establishment of Ayurvedic and Unani Dispensaries at Pune (Rs. 12.00 lakh), Aamravati (Rs. 52.00 lakh) Chandrapur (Rs.3.90 lakh) and Nagpur (Rs. 5.00 lakh) has been provided for the year 2007-08 under district level scheme.

As a part of the commitment to better rural outreach, particularly in Tribal areas, Government has decided to establish Rural Health Centres attached to the Government Medical Colleges and Hospitals in some Tribal areas of the State.

For the sub sector Medical Education, an outlay of Rs. 1072.90 lakh has been provided in the Tribal sub Plan for the year 2007-08.

Nav Sanjeevan Yojana

The Nav Sanjeevan Yojana aims at integrated and coordinated implementation and strengthening of various drinking water, health facilities, etc. to the tribals which were previously being implemented by several agencies at several levels without ensuring proper coordination.

At present the following schemes have been included in the Nav Sanjeevan Yojana and are being implemented:-

- 1) Employment Program
 - a) Employment Guarantee Scheme
 - b) Centrally Sponsored Sampurna Gramin Rojgar Scheme
- 2) Health Services
 - a) Providing primary health care services
 - b) Providing Pure and Clean drinking water
- 3) Nutrition Program
 - a) Integrated Child Development Scheme
 - b) School Feeding Program
- 4) Supply of Foodgrains
 - a) Distribution of Food grains through Fair Price Shops
 - b) Revamped Public Distribution System

- c) Door Delivery System
- 5) Consumption Loan Scheme
- 6) Grain Bank Scheme

Nav Sanjeevan Yojana is being implemented in the Tribal Sub Plan Area, Additional Tribal Sub Plan Area and Mini MADA Pockets and in the MADA pockets of the State.

The Collectors of the Districts in Tribal Sub Plan Area act as the Chief Implementing Officers of the Nav Sanjeevan Yojana and the Chief Executive Officer of the Zilla Parishads the District Health Officers and the Project Officer, Integrated Tribal Development Projects (ITDP) have active association and participation therein. The officers implementing the individual schemes are responsible for the successful and effective implementation of the Nav Sanjeevan Yojana.

The Collector has to take a monthly review of the various programs included in the scheme. He has to identify the risky/sensitive areas/pockets/villages in his District. The Collector while identifying such area/pockets/villages has to take into account the following norms.

- a) Villages which have been declared as inaccessible earlier.
- b) Villages/Pockets where mal-nutrition has occurred on a large scale in the past.
- c) Villages which are cut off during the monsoon.
- d) Villages where no clean and pure water supply is available.
- e) Villages which are far off from the Primary Health Centres or Sub Centres.
- f) Villages where the Fair Price Shops are not functioning or villages which are far off from such shops.
- g) Villages where it is difficult to provide employment during the monsoon.
- h) Villages where there are no Anganwadis under the Integrated Child Development Scheme.

Health Services: -

Tribal areas are generally inaccessible due to difficult terrain. Such areas are, therefore, deprived of timely and adequate health facilities, particularly during the monsoon when there is interruption in the

communication machinery. In order to overcome the problem the government has decided to provide following health facilities. The Govt. has also decided the implementation of "Melghat Pattern" the schemes of Health & Nutrition in all districts of TSP Area from 2003-04. In this sensitive tribal area an outlay of Rs.2795.01 lakh has been provided for the year 2007-08 to provide health services.

1) **Pada Volunteer Workers:-** Tribal population is scattered in Adivasi Padas. Due to inaccessibility of Padas in rainy season it is essential to provide Health service to tribals. To disinfect drinking water & intimate the outbreak of any epidemics.

2) **Medical check-up of mothers and children of each family in each hamlet and provision of facilities to high risk mothers and grade III and IV children in the I.T.D.P.Area of 5 critical Districts.:-** Under this scheme 172 Rescue Camps headed by Honorary Medical Officers on Honoraria of Rs 8,000/- per month have been sanctioned.

3) **To provide antenatal maternity benefit for 3 months and one month's post-natal maternity benefit to high risk mothers :-** This scheme is introduced to reduce the number of premature births. Under this scheme financial assistance of Rs200/- is paid per month to each high risk pregnant woman for 4 months. The Govt. has decided the implementation of this scheme in all tribal districts from 2003-04.

All above mentioned schemes are merged together under new name providing Special Health Services in sensitive tribal area. For this scheme Rs.2795.01 lakh has been kept for the year 2007-08.

4) **Appointment of Hon. Paediatricians :-** This scheme is only for the talukas of Dharni and Chikhaldara in Amravati District. Under this scheme, an honorarium of Rs 300/- per visit is proposed to be paid to the paediatrician visiting the Dharni and Chikhaldara areas of Amravati District for examining children.

5) **Monthly Meeting of Trained Dais :-** In the Integrated Tribal Development Project area the deliveries are conducted by the Dais. This scheme has been introduced for ensuring 100% registration of deliveries and to undertake survey and to monitor high risk mothers and newly born babies. For this purpose, a provision of Rs. 38.99 lakh is made in TSP, 2007-08.

6) **Establishment of Paediatric I.C.U.:-** To reduce the death of infants, paediatric I.C.U. have been sanctioned at the Children Health Centre, Nashik District and Nagpur District. For this scheme, a provision of Rs 4.00 lakh is made in TSP, 2007-08.

Nutrition :-

In the inaccessible area of Dharni and Chikhaldara talukas of Amravati, Thane, Nashik, Dhule and Gadchiroli Districts, additional supplementary nutrition is intended to be provided to the tribal beneficiaries of 15 Integrated Child Development Projects.

The revised rate of supplementary nutrition are as shown in the following statement.

Comprehensive Rural Health Project for Tribals (Jamkhed Project)

With a view to develop preventive, promotive and curative health care services at village level with a focus on reducing the women and child morbidity and mortality and communicable diseases, Government has decided to implement a comprehensive health project for tribals in 12 talukas of 7 districts with priority to be given to primitive tribal villages. The Government has given administrative approval to this program vide Government Resolution, Tribal Development Department No. Sankirn-2003/CR-170/D-VIII, dated 27.2.2004. A provision of Rs.250.00 lakh is proposed during the year 2007-08.

District	Talukas
Thane	Jawhar
	Mokhada
Nandurbar	Akkalkuwa
	Akrani (Dhadgaon)
Amravati	Dharni
	Chikhaldara
Ahmednagar	Akole
Gadchiroli	Etapalli
	Bhamragad
Yavatmal	Maregaon
Rajgad	Karjat
	Sudhagad

Goal :- To develop sustainable model of Integrated Tribal Development, with a view to improve quality of life of the tribal.

Specific Objectives :-

- 1) To develop preventive, promotive and curative health care services at the village level, with focus on reduction of women and child morbidity and mortality, and control of communicable diseases.
- 2) To promote universalisation of primary education and vocational training.
- 3) To develop livelihood opportunities towards food security and nutrition.
- 4) To empower and involve the community and Panchayat Raj Institutions (PRI) through information dissemination, about comprehensive development issues and strategies.
- 5) To promote self esteem, cultural identify and National consciousness.

The program components are health, education, livelihood, Income Generation Activities, Community Development, Empowerment, training and orientation of development functioning self-esteem and cultural identity of the tribal.

At the end of the project following trained new power will be available in the project areas-

Tribal Village facilitators	-	450
Tribal Villages Co-ordinators	-	45
Local resource Persons	-	1800

The total budget estimated is around Rs.10,34,98,000/- (Rs.Ten crore Thirty four lakh Ninety thousand only)

For the current year 2007-08 Rs.250.00 lakh outlay has been provided.

Sr. No.	Kind of beneficiaries	Rate Supplementary nutrition
1)	Children in the age group of 0 to 6 months to 2 Years	Rs 1.50
2)	Children in the age group of 2 Years to 6 years	Rs 2.25
3)	Malnourished children in the age group of 6 months to 2 years (Grade III & IV)	Rs 4.50
4)	Malnourished children in the age group of 2 years to 6 years (Grade III & IV)	Rs 4.50
5)	Pregnant & Lactating mothers	Rs 4.50

Employment Program

Employment programs are being implemented in such a manner as to provide sufficient employment opportunity in every tribal village or a group

of villages so that the migration of tribals is reduced and for this purpose sufficient number of works have been sanctioned. Wages to the labour on employment programs are paid expeditiously.

Consumption Loan

The Government of Maharashtra is implementing the scheme of Consumption Loan since 1978, to save the tribals from malnutrition during the lean period of the monsoon.

This scheme has been further revised and the rates of loan are as follows:-

- i) Family having upto 4 units on the ration card : Upto Rs 2000/-
- ii) Family having upto 8 units on the ration card : Upto Rs 3000/-
- iii) Family above 8 units on the ration card : Upto Rs4000/-

Also as decided earlier families with children in grades III and IV would continue to be covered irrespective of whether they are defaulters or not. In the 2005-2006, 178845 families have been given of foodgrains amounting to Rs. 53.00 crore & for the year 2007-08 Rs.60.00 crore has made available for this scheme.

Grain Bank :-

However, this scheme gets restricted because of the indebtedness of most of the tribal families. Therefore, the State Government has decided in July, 1995 to implement the traditional Grain Bank Scheme at village level with the active cooperation of Voluntary Agencies/Non Governmental Organisations (NGOs) and others who are willing to participate in the scheme.

The idea behind the scheme is that each member will contribute a fixed amount of grain towards the Grain Bank during/immediately after the harvest, and take a loan of the Grain Bank according to his need during the next lean period and return it alongwith interest immediately after the next harvest.

The salient features of the scheme are as follows:-

- 1) **Jurisdiction** :- A grain Bank will be established for at least 1 and at the most 4 villages which will consist of 50-500 families.
- 2) **Implementation and nature of the scheme:-** The scheme will be implemented through Voluntary Agencies, Tribal Cooperative Societies, NGHO/Voluntary Agencies, Fish rearing Societies etc.

- 3) Working Committee :- There will be a Working Committee elected by the members of the Grain Bank. It can also include leaders/elders in the village who would be coopted. However, the majority of the members must be tribals and there shall be a lady as the women's representative on the Committee.
- 4) Membership:- Both the tribal and non-tribal villagers would be eligible to become members of the Grain Bank. Landless families can also become members
- 5) Contribution :- Every member would deposit a prescribed quantity of grain as his contribution in the Grain Bank initially. Only the tribal members, who are not able to contribute their share will get 2/3 part of the share from the Maharashtra State Cooperative Tribal Development Corporation as one time assistance. The remaining 1/3 part should be contributed by the member himself. Normally the initial contribution would be one quintal of grain per family.
- 6) Type of Grain :- The Grain Bank will normally consist of the grain which is grown and eaten in that particular area, but the working committee may at its discretion decide whether to keep more than one type of grain, according to the need and availability of the grain.
- 7) Storage of the Grain- Storage of grain in the Grain Bank will be made in the local/traditional way. The responsibility of storage and preservation would be of the Working Committee.
- 8) Withdrawal of Grain- Only members who have deposited grain in the Grain Bank will be liable to get grain on loan from the Grain Bank.
- 9) Repayment of Grain:- The member of the Grain Bank will return the grain taken from the Grain Bank during/immediately after the next harvest along with interest. The rate of return would be vary from 105% to 115% depending on when the grain is returned.
- 10) Supervision:- Overall supervision of the scheme will be done by the Additional Tribal Commissioner and the Project Officers of the Integrated Tribal Development Projects concerned.
- 11) Equipment:- Essential material like balances, weight etc., would be given to the Society as a one time assistance from the Nucleus Budget Scheme.

The responsibility for the successful implementation of the scheme will be jointly of the field machinery and the Maharashtra State Cooperative Tribal Development Corporation. Instructions have been issued to all officers concerned to start action immediately so that the scheme can be started as early as possible and the villagers will be able to get grain from the Grain Banks in their area from the ensuing lean season. With a view to

achieve this goal, the Project Officers have been instructed to motivate Voluntary Agencies to start the scheme and in case of any of the Societies/agencies who are willing to start the scheme, taken all further steps like registration of members, forwarding proposals regarding requirement of the initial grain stock to the Maharashtra State Cooperative Tribal Development Corporation etc. Some societies have shown willingness to start the scheme land MSTDC has received demands for initial grain contribution from some Voluntary Agencies. The funds necessary for this purposes have been already released by Government to the MSTDC recently.

As a part of implementation of the Nav Sanjeevan Yojana great care is taken to supply sufficient quantity of food grains in the Tribal Sub Plan Areas. 5557 Fair Price Shops are functioning in the 15 Districts under the Tribal Sub Plan Area. During the monsoon of 2005, 35 temporary godowns were opened wherein 41561/- quintals of grains have been stored.

In order to avoid inconvenience in supplying the food grains where there is a break down of communications with vulnerable tribal areas during the monsoon, 58 Fair Price Shops have been supplied with food grains using 7 vehicles. The food grain is being regularly supplied in the tribal area under the Revamped Public Distribution System (RPDS) sponsored by the Government of India.

District, Division and State Level review meetings are being regularly held for proper, smooth and effective implementation of the Nav Sanjivan Yojana.

1.6 Health & Nutritional Problems Among Tribal Women.

Women as mothers, grandmothers, sisters and wives play an important role in preventive, promotive and curative aspects related to family health. Women in India especially those ones engaged in occupational, agricultural, daily wage, labour have to manage both occupational as well as household responsibilities.

Hence, issues related to health of women in India need to be given special consideration. Sumaraj Leela (1991 : 8) has rightly pointed out that in our society women report themselves ill more often than men.

This section of the Chapter, throws light on health and nutritional problems of tribal women in Maharashtra.

A) Common Health Problems

Studies by Medical doctors and Health Scientists of B.J. Medical College, Tribal Health Research Centre (1995 : 46 - 60) revealed following common health problems among tribal women.

1. Diarrhea
2. Respiratory disorders
3. Fever and Malaria
4. Skin disorders such as scabies, fungal infection, chicken pox etc.
5. Injuries, cuts and wounds
6. Chapped heels
7. Worm infestation
8. Anemia
9. Goiter
10. Dysentery
11. Sickle Cell Anemia
12. GPD deficiency
13. Jaundice
14. Malnutrition
15. Menstrual disorders
16. Vitamin deficiencies
17. Arthritis & Joint pain
18. Cough and cold
19. Snakebites, scorpion stings etc.
20. Dental caries

Dr. Dharyasheel Shirole a famous pediatrician from Pune, who has been working with Dr. Prakash Amte at the Lok Biradari Prakash, Hemalkasa, in Bhamragad block of Gadchiroli district, states that besides the above mentioned common health problems, cerebral malaria, Filaria, Tuberculosis, Bear bites, sickle cell Anemia, Malnutrition, Vitamin deficiency is very common among the Madia Gonds and other tribal groups that visit Likbiradar Hospital.

B) Chronic Health Problems Among Tribal Women

• Malnutrition Among Tribal Women

A study conducted by Tribal Research and Training Institute, Pune (2007 : 17) in five hamlets of Wada block, Thane district in the State of Maharashtra, with the help of Medical experts revealed that out of the 159 women measures 119 i.e. 74% were undernourished.

Table No. 1.6

Villagewise number & percentage of undernourished Female adults

Sr. No	Village	No. of women measures	No. of normal women	No. of under nourished women	Percentage of under nourished women
1	Katkari pada of Ambiste Budruk	15	--	15	100%
2	Warli pada of Palsai	19	7	12	63%
3	Murabi pada of Vasuri budruk	21	6	15	71%
4	Neheroli	88	21	67	76%
5	Sadkecha Pada of Gandhre	18	6	10	56%
		159 (100%)	40 (20%)	119 (74%)	

Dr. A.C.Bagade & others (1995 : 50) diagnosed in a health camp at Navapur following health problems among tribal males and females.

- a. Diarrhea - 60%
- b. Worm infestation - 70%
- c. Malnutrition - 30 – 50%
- d. Respiratory diseases - 10%
- e. Anemia - 50 – 80%
- f. Goiter - 10% , in Dhadgaon it was about 60%

Thus, Malnutrition & Anemia among Tribal women is a chronic problem.

- **Goiter**

Studies by Dr. S.L.Kate (1995) reveal that goiter is an endemic disease in Dhadgaon & Akkalkuva blocks of Nandurbar district. Women and men are victims of this disorder.

- **Sickle Cell Anemia**

In their study captioned, "Health problems of Bada Madia", Kate S.L., Fulmali P.M. and Kulkarni V.S. (1999) have revealed that out of the 155 Madias examined for sickle cell trait 75 were males and 80 were females. Out of the total 155 sample, 123 were normal, 29 were carrier and 3 were sufferers. Furthermore, their study also revealed that a sickle cell sufferer usually has following symptoms :

- i. Severe anemia
- ii. Bone and joint pain
- iii. Intermediate jaundice
- iv. Enlargement of spleen and liver.

These symptoms go on increasing with age. The patient hence falls ill always and needs medical supervision.

- **Skin Disorders**

Studies by Jain N.S. & Tribhuwan Robin (1995 ; 1996) ; Nanal Foundation (2000); Kate S.L. (1995) etc. have revealed that skin disorders such as scabies, fungal infection, chicken pox, measles, ring worm, boils etc. are very common among tribal girls and women.

- **Digestive Disorders**

Dr. N.S.Deodhar – a WHO consultant, is of the view that 65% of digestive disorders can be prevented if pure and clean water is provided to people. In tribal areas sources of drinking water are generally contaminated, hence invites digestive disorders, not only among females, but children and adult males as well.

- **Respiratory disorders**

Tribal Housing styles and architecture is one important factor responsible for chronic and acute bronchitis, pneumonia, cough and cold among tribals including women. Tribal children are worse sufferers of these as they wear less or no clothes. The damp and cold floor, the smoke and lack of ventilation aggravates respiratory disorders.

- **Vitamin Deficiency**

Lack of balance diet, insufficient consumption of green leafy vegetables, milk, fruits, pulses etc. given rise to vitamin deficiency problems.

1.7 Maternal Mortality Among Tribals

In his paper captioned, "The State of Maternal Health", Dr. Dilip Mavlankar has revealed that "Maternal Mortality is defined as the death of women while pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by pregnancy or its management. MMR is the number of maternal deaths per 100,000 live birth in one year. WHO estimates that out of the 5,29,000 maternal deaths globally each year 1,36,000 i.e. (25.7%) are contributed by India. This is the highest burden for any single country in the World. He further states that reliable estimates of MMR are not available in India, but some efforts have been made to assess the levels of MMR.

Socio-economic variations in MMR are known but not well documented in India. A study by Bhat et al shows that generally MMR is higher in Scheduled Castes and Tribes.

Table 1.7 reveals socio-economic variation in MMR.

Table No. 1.7

Socio-economic Variation in MMR

Sr. No.	Background characteristics	Sub categories	MMR (Per 100,000 live births)
1.	Caste	Scheduled Castes	584
		Scheduled Tribes	652
		Others	516
2.	Religion	Hindu	573
		Muslim	384
		Others	428
3.	Education	Illiterate	574
		Primary or less	492
		Middle and more	484
4.	Socio-economic status	Poor	555
		Lower middle	439
		Upper middle	611
		Non-poor	484

Sr. No.	Background characteristics	Sub categories	MMR (Per 100,000 live births)
5.	Village Development	Low	646
		Medium	501
		High	488

Dr. Mavalankar points out causes of Maternal Deaths due to Hemorrhage, Anemia, Hypertensive disease of pregnancy, puerperal sepsis, Abortion, Obstructed labour / mal presentation etc. Researchers have examined risk factors for maternal mortality in the past. These are : a mother's age below 20 or above 35 ; illiteracy, poor socio-economic status and lack of A.N.C. Some of the less commonly identified factors include bad obstetric history, anemia, maternal complications and diseases, and delivery by an unskilled person.

- **Causes of Maternal Mortality Among Tribal Women**

- i. **Place of delivery**

A survey conducted by Tribal Research and Training Institute (2000 : 28) in Nandurbar district revealed that 99.31% of the deliveries among the tribal families studied are conducted at home. Table 1. Reveals it all.

Table No. 1.8

Place of Delivery

Sr.No.	Place of Delivery	Number	Percentage
1	At home	142	99.31%
2	Did not respond	1	0.69%
Total		143	100

The reasons given by respondents as to why deliveries conducted at home are :

- i. The umbilical cord has to be buried next to the house. Burial of umbilical cord symbolizes the attachment of child to the house and family.
- ii. On the fifth day after the birth of a child the midwife, performs the ceremony of worshipping the mother goddess. The ritual is performed at home.

- iii. A few women (educated) said that hospital expenses were too high.

95% and 3.52% of the deliveries were conducted by traditional female (Huvarki) and male birth attendants, in the house of the tribals. This is because the T.B.A. attend birth rituals. Secondly, according to the tribal women T.B.A.'s are more accessible, arrive in time, are available at all times of the right and also they are preferable to the paramedical staff.

Table 1.9
Personnel who conduct Delivery

Sr.No.	Birth Attendants	Number	Percentage
1.	Female Traditional Birth Attendant	136	95.0%
2.	Male T.B.A.	5	3.52%
3	A.N.M.	1	0.69%
4.	Did not Respond	1	0.69%
	Total	143	100%

Studies by following authors also reveal that the Percentage of deliveries at home in tribal societies are very high.

- A report by Tribal Research and Training Institute (2000 : 18) captioned "Dying children" reported that 96% of deliveries in selected tribal families were at home while 4% in P.H.C. / Sub Centre. The same study revealed that 92% of the deliveries were attended by T.B.As.
- In his study, captioned "Medical World by Tribals", Tribhuwan Robin (1998) revealed that over 90% of the deliveries among the Thakars of Karjat were conducted at home & 92% of them conducted by T.B.As.
- A survey captioned, "Socio-economic status and Development Needs of the Katkaris : A case study, by Tribhuwan Robin (2006) states that deliveries of all the 14 families studied were conducted at home by the midwife.
- Y.P.S. Tomar and Tribhuwan Robin (2005 : 52) in their book entitled "The Mavchis of Nandurbar : A lesser known Tribe, revealed the 71% of the deliveries among the Mavchis were conducted at home & 89.62% of them were handled by T.B.As.

ii. Age At Marriage.

Studies by Jain N.S. and Tribhuwan Robin (1995, 1996), Tribhuwan Robin 1998; Bhanu B.V. and Kulkarni L.V. (1995) revealed that the average age at marriage for girls among tribals is from 14 to 17 and for boys it is from 15 to 20, with few exceptions. An undernourished girl get married at an early age and produces a low birth weight child. She faces problems during delivery.

• Illiteracy Among Tribal Women

The table given below clearly indicates that the literacy rate among tribal females is very low as compared to females of general population. In fact, it is pertinent to note that there is a big gap of literacy rate among tribal and non-tribal women. It is widening decade after decade. No wonder why tribal women face gynecological problems.

Table 1.10

General & Tribal Literacy Rates in Maharashtra during five decades

Sr.No	Year	General			Tribal		
		Male	Female	Total	Male	Female	Total
1	1961	42.04	16.76	29.82	12.55	1.75	7.21
2.	1971	51.04	26.43	39.13	19.06	4.21	11.74
3.	1981	58.65	34.67	47.02	32.38	11.94	22.29
4.	1991	76.56	52.30	49.08	49.08	24.08	36.77
5.	2001	86.60	67.00	76.90	67.00	43.10	52.20

• Poor Status

The Tribal Research and Training Institute, Pune conducted a Bench Mark Survey in 1981 that revealed 94% of the tribals in Maharashtra were below the poverty line. The same institute conducted Bench Mark Survey in 2001 which revealed that 92% of tribals in the State were below the poverty line. This means that during a span of 16 years only 2% made the difference. Table Number 1.11 Depicts I.T.D.P.wise tribal Below Poverty Line families in Maharashtra.

Table 1.11

I.T.D.P. wise Below Poverty Line Tribal Families in Maharashtra

Sr. No	I.T.D.P.	S. T. Families		Percentage of families below poverty line (figures in Col.4 to Col.No.3)
		Total	Below poverty line	
1.	Thane (Dahanu)	66447	59595	89.69
2.	Thane (Jawhar)	46556	40939	87.93
3.	Thane (Shahapur)	22260	19743	88.69
4.	Raigad (Pen)	9929	9396	94.63
5.	Nashik (Kalwan)	40446	36717	90.78
6.	Nashik (Trimbak)	58019	52776	90.96
7.	Dhule (Taloda)	69622	66305	95.24
8.	Dhule (Nandurbar)	91588	83496	91.16
9.	Jalgaon (Yawal)	5935	5479	92.32
10.	Ahmednagar (Rajur)	13208	11486	86.96
11.	Pune (Ghodegaon)	14340	12042	83.97
12.	Nanded (Kinwat)	20288	17837	87.92
13.	Amravati (Akola)	9378	8692	92.69
14.	Amravati (Dharni)	27326	23977	87.74
15.	Nagpur (Ramtek)	15110	13718	90.79
16.	Gondia (Deori)	20090	18396	91.57
17.	Yavatmal (Pandharkawada)	36561	33562	91.79
18.	Chandrapur (Rajura)	28682	26287	91.65

Sr. No	I.T.D.P.	S. T. Families		Percentage of families below poverty line (figures in Col.4 to Col.No.3)
		Total	Below poverty line	
19.	Chandrapur (Chimur)	11091	10165	91.65
20.	Gadchiroli (Ettapalli)	12445	11772	94.59
21	Gadchiroli (Dhanora)	5413	4921	90.91
22	Bhamragad	11846	10835	91.47
Total		634580	578136	91.11

• **Food Scarcity**

Majority of tribals are small scale cultivators. They cultivate for six months and work as agricultural labourers or daily wage labourers for the remaining six months. Production for consumption and not distribution is one of the salient features of their economic organization. Studies have revealed that food grains produced by them are enough for 4 to 6 months.

Tribal Research and Training Institute, Pune conducted a study in (2002 : 10). The table below indicates the number of months food availability from their own land. Out of the 143 families, 123 (86%) were food deficit. As many as 78% of the households had a food deficit of 6 months or more. This was the food deficit from their own farms.

Table 1.12

Sr. No.	Months of Food Availability	No. of families	Percentage
1	0 to 2 months	4 + 39 landless	35
2.	2 to 4 months	29	24
3.	4 to 6 months	23	19
4.	6 to 8 months	19	15
5.	8 to 10 months	8	6
6.	More than ten	1	1
Total		123	100

From the above statistics, it is evident that tribal women do suffer from health and nutritional hazards due to economic, educational and social backwardness and lack of resources. Furthermore, these problems vary

from tribe to tribe. Katkaris and Dhor Kolis of western Maharashtra are landless and very poor as compared to tribes having land.

1.8 Objectives of the study

- a. To understand the perception of health and nutrition of tribal women from an insider's perspective.
- b. To explore the health, nutritional and hygienic problems faced by them.
- c. To study the health seeking behaviour among tribal women.
- d. To unveil the human medical resources among tribal women.
- e. To suggest recommendations to frame culturally and ecologically appropriate policies for health of tribal women.

1.9 Significance of the study

Studies on health of tribal women in Maharashtra are very few. These are published in the form of papers and articles. However, there is no detailed report on the subject. This report will not only develop new theoretical insights in Medical Anthropology and Sociology, Health Sciences, Social Sciences etc., but will also help in formulating health policies for tribal women.

* * *

Chapter Two

RESEARCH METHODOLOGY

2.1 Locale of the study

The present study was conducted in five districts, six tahsils and seven villages, in the State of Maharashtra, India. Table 2.1 presents district, tahsil and village wise number of interview Schedules administered.

Table No. 2.1
Districtwise number of Interview Schedules Administered

Sr No	District	Block	Village	Hamlet	No. of schedules
I	Nandurbar	1. Navapur	1. Nimboni	1. Bhilvasti	13
		2. Nandurbar	2. Dekhavad	2. Nalaphali	9
II	Raigad	3. Pen	3. Savarsai	3. Katkaripada	24
III	Thane	4. Jawhar	4. Wavar	4. Wavar	14
		5. Jawhar	5. Vangani	5. Shindepada	5
				6. Patilpada	2
				7. Savaricha Gharta	5
IV	Amravati	6. Achalpur	6. Burudghat	8. Korkupada	32
V	Yavatmal	7. Kelapur	7. Pahapal	9. Beghar	23
Districts 5		Blocks 6	Villages 7	Hamlets 9	127

2.2 Target Population

As evident from table 2.2, the study covered all the tribes from sensitive districts of Tribal Sub Plan namely Nandurbar, Amravati, Thane, Yavatmal, Raigad etc. Table 2.2 presents tribewise number interview schedules administered.

Table No. 2.2
Tribewise number of schedules administered

Sr.No.	Tribe	District	No. of Schedules
1.	Bhil	Nandurbar	22
2.	Katkari	Raigad	24

Sr.No.	Tribe	District	No. of Schedules
3.	Warli	Thane	22
4.	Kokna	Thane	4
5.	Korku	Amravati	32
6.	Kolam	Yavatmal	23
	Tribes - 6	Districts - 5	127

2.3 Method of Data Collection

a. Primary Data

Both Primary and Secondary data were gathered by the researchers. Primary data was gathered by designing an interview Schedule for tribal women between the age range 15 to 49 years. The researchers interviewed 127 tribal women using the Schedule (see Appendix I).

b. Secondary Data

An extensive review of literature was carried out by searching and referring articles, monographs, encyclopaedias and literature on health of tribal women. Reports of non-Government and Government organizations were studied. Facts and figures from Census of India, District Gazetteers, Bench Mark Survey by Tribal Research and Training Institute, Pune, Tribal Sub Plan book published by Tribal Development Department, Government of Maharashtra etc. were referred.

2.4 Research Tools

Primary data was collected using interview Schedules was entered in the computer using Excel Soft ware. Simple tables were prepared and interpreted, so as to present quantitative data. Qualitative data was analyzed manually. Qualitative data was gathered by holding informal interviews with traditional medical practitioners such as Shamans, Herbalists, Bone setters and Traditional Birth Attendants, Elderly women, pregnant and lactating women, Trustees and staff of N.G.Os. working on tribal health etc. Besides conducting focussed Group Interviews of the above mentioned key informants, use of observation method and photography was done to support the data collected using interview schedule.

2.5 Sampling Procedures.

The researchers selected 10% of the total number of households in every hamlet and village selected. This was done to avoid bias and select representative sample. A list of heads of the households was made village

and hamlet wise and every tenth head was selected as a respondent. Thus, simple random sampling procedures were used to select the sample.

2.6 Chapter Scheme

The data collected, analyzed and interpreted has been presented in six chapters. These are as follows :-

I] Chapter One

An overview of Tribal Health & Infrastructure.

II] Chapter Two

Research Methodology

III] Chapter Three

Health Issues of Tribal Women : Findings

IV] Chapter Four

Medical Resources Among Tribal Women.

V] Chapter Five

Maternal Health Beliefs and Practices : A cross cultural view

VI] Chapter Six

Summary, conclusions and Recommendations

* * *

Chapter Three

HEALTH ISSUES OF TRIBAL WOMEN : FINDINGS

3.1 Background of the study

Review of secondary data on Health issues of Tribal women was done by the researchers in order to explore whether any detailed study is available on the subject. It was observed that there is not a single book published on the subject given a cross cultural view. In this Chapter the researchers aim at unveiling primary and basic health issues of six tribes studied. The primary data collected through an interview schedule focuses on following areas of women's health.

- **Personal information**
- **Sources of drinking water and its quality as perceived by them.**
- **Bathing habits**
- **Personal hygiene**
- **Disease history**
- **Nutritional status**
- **Deaths in the family and their causes**
- **Treatment of women during menstrual cycle**
- **Treatment of barren women**
- **Treatment of mentally ill women**
- **Awareness about Matrutvan Anudan Yojna**
- **Health expenditure**
- **Work load of women**
- **Use of contraceptives**
- **Small family norms**
- **Other observations**

The primary data has been presented in simple tables and interpreted to explain every indicator that is associated with health issues, education and care of tribal women.

3.2 Tribewise women interviewed

Table number 3.1 presents tribewise women interviewed from five districts.

Table No. 3.1

Tribewise women interviewed

Sr.No.	Tribe	District	No. of women
1	Bhil	Nandurbar	22
2.	Katkari	Raigad	24
3.	Warli	Thane	22
4.	Kokna	Thane	4
5.	Korku	Amravati	32
6.	Kolam	Yavatmal	23
7.	Tribes - 6	Districts - 5	127

3.3 Age Range

Table No.3.2 reveals the age range of women respondents

Table No. 3.2

Age range of women

Sr.No.	Age Range	Number	Percentage
1	15 to 20	9	
2.	20 to 25	30	24%
3.	25 to 30	28	22%
4.	30 to 35	22	17%
5.	35 to 40	12	9%
6.	40 to 45	11	8%
7.	Above 45	15	12%
Total		127	100%

3.4 Awareness about birth date

The cult of celebrating birth day is a western concept. The family celebrates the birth day of a member by cutting a cake, preparing delicious food, purchasing clothes or gifts for the person etc. Birth certificates have significance among the educated and modern population in India. People in the urban areas usually remember their birth dates. An attempt was made to explore how many tribal women know their birth dates. Table No. 3.3 reveals that 85% of them were not aware of their own birth dates. The ages of the women and their family members were calculated by analyzing the number of children they had, their educational qualification, the age at when they were admitted in the school, years of marriage etc. These were done especially among the illiterate women. The Anganwadi workers data was useful to track the ages during pregnancy etc.

Table No. 3.3

Tribal women's awareness of birth dates

Sr.No.	Awareness	Number	Percentage
1	Aware	19	15%
2.	Unaware	108	85%
	Total	127	100%

3.5 Educational Status

Table number 3.4 presents the educational status of tribal women interviewed. It is observed that 80% are illiterate; 7% studied upto primary, 13% upto High School level.

Table No. 3.4

Educational status

Sr.No.	Educational level	Number	Percentage
1	Illiterate	101	80%
2.	Primary	9	7%
3.	High School	17	13%
4.	Higher Secondary	0	0%
5.	Under graduate	0	0%
6.	Graduate	0	0%
	Total	127	100%

3.6 Age at marriage

Age ranges at marriage of tribal women interviewed were as follows :

Table No. 3.5

Age range at marriage

Sr.No.	Age Range	Number	Percentage
1	13 to 15	13	10%
2.	15 to 18	75	59%
3.	18 to 21	31	24%
4.	Above 21	0	0%
5.	Did not respond	8	6%
Total		127	100%

3.7 Husband's Age at marriage

Table number 3.6 reveals the age ranges of the respondent's husband's at marriage.

Table No. 3.6

Husband's Age at marriage

Sr.No.	Age Range	Number	Percentage
1	15 to 18	16	13%
2.	18 to 21	57	45%
3.	21 to 24	40	31%
4.	24 to 27	4	3%
5.	Above 27	1	1%
6.	Did not respond	9	7%
Total		127	100%

It is observed from table 3.5 that 59% of women interviewed got married during the age range 15 to 18; 10% during 13 to 15 years and 24% between the age range 18 to 21. Among their husbands the age range of getting married is better. 45% got married between the age range 18 to 21; 31% 21 to 24 and only 13% from 15 to 18 years of age.

3.8 Awareness regarding husband's birth date

It is evident from table number 3.7 that 83% of the women were not aware of their husband's birth dates.

Table No. 3.7**Awareness regarding husband's birth date**

Sr.No.	Awareness	Number	Percentage
1	Aware	22	17%
2.	Unaware	105	83%
Total		127	100%

3.9 Age at first pregnancy

Table 3.8 reveals that 35% of respondents became pregnant within the age range, 15 to 18; 50% from 18 to 21; 4% from 21 to 24; only one between 13 to 15.

Table No. 3.8**Age at first pregnancy**

Sr.No.	Age range	Number	Percentage
1.	13 to 15	1	1%
2.	15 to 18	44	35%
3.	18 to 21	63	50%
4.	21 to 24	5	4%
5.	Above 24	1	1%
6.	Did not respond	9	7%
Total		127	100%

3.10 Age at second pregnancy

From table 3.9 it is evident that the respondents do not give much gap when they go for the second child. Table 3.9 reveals it all.

Table No. 3.9**Age at second pregnancy**

Sr.No.	Age Range	Number	Percentage
1	15 to 18	6	5%
2.	19 to 21	49	39%
3.	21 to 24	37	29%
4.	24 to 27	4	3%
5.	Above 27	1	1%
6.	Did not respond	30	24%
Total		127	100%

3.11 Number of Abortions.

Table number 3.10 revealed that 67% of respondents had one abortion; 33% had two; and not single woman had more than two.

Table No. 3.10

Number of Abortions

Sr.No.	No. of abortions	Respondents	Percentage
1	Once	8	67%
2.	Twice	4	33%
3.	More than 2 times	0	0%
	Total	12	100%

3.12 Place of Abortions

An attempt was made by the researchers to find out the place of abortions by the respondents. Table number 3.11 reveals that 38% of abortions were done in institutions i.e. in Primary Health Centres, sub-centres or hospitals, while 62% were done at home.

Table No. 3.11

Place of Abortion

Sr.No.	Place of abortions	Number	Percentage
1	Institutional	4	38%
2.	At home	8	62%
	Total	12	100%

3.13 Who managed abortions ?

Table number 3.12 shows that 50-% of the abortions were managed by medical and paramedical workers, while 50% by the traditional practitioners/relatives.

Table No. 3.12

Personnel who managed abortions

Sr.No.	Personnel	Number	Percentage
1	Medical & paramedical personnel	6	50%
2.	Traditional medical practitioners / relatives.	6	50%
	Total	12	100%

3.14 Family size

According to this study the total number of males were 289 and females covered were 290. In all 579 was the total population of 127 families studied in five districts.

Table No. 3.13

Family size

Sr.No.	Size	Number	Percentage
1	1 to 4	68	53%
2.	4 to 6	43	34%
3.	6 to 8	15	12%
4.	Above 8	1	1%
	Total	127	100%

The table also reveals that 53% of the families had 1 to 4 members, 34% ; 4 to 6; 12% ; 6 to 8; and 1% above 8 members in their respective families.

3.15 Occupation of Tribal women

Occupational status of tribal women interviewed was as follows :

Table No. 3.14

Respondent's occupation

Sr.No	Occupation	Number	Percentage
1.	Housewife	16	13%
2.	Service	1	1%
3.	Cultivation	14	11%
4.	Agriculture labour	54	42%
5.	D.W.L.	40	31%
6.	Others	2	2%
	Total	127	100%

3.16 Husband's occupation

Similarly the occupation of the husbands was explored. Table number 3.15 throws light on the same.

Table No. 3.15

Husband's occupation

Sr.No.	Occupation	Number	Percentage
1.	Service	3	2
2.	Cultivation	24	19
3.	Agriculture labour	41	32
4.	D.W.L.	52	41
5.	Others	7	5
Total		127	100%

Comparative analysis of tables 3.14 and 3.15 reveals that tribal women are 42% agricultural labourers and 32% of men too have the same occupation. 31% women are Daily Wage labourers ; while 41% of men too are wage labourers. The percentage of cultivators is however less.

3.17 Land Holding

Out of the total 127 respondents it was observed that 64% were landless & 36% were land holders. Tribewise picture of the same reveals that landlessness is a salient feature of Katkaris : an empowerish tribe.

Table No. 3.16

Land holding

Sr.No.	Land status	Number	Percentage
1	Landless	81	64%
2.	Landholders	46	36%
Total		127	100%

3.18 Irrigation status of the land

Table number 3.17 shows that 22% of the respondents have irrigated land while 76% did not. It was also observed that majority of the respondents depend on rains for irrigation, i.e. during the monsoon period. From October to May they are busy with Minor Forest collection, Daily wage and Agricultural labour.

Table No. 3.17

Irrigation status

Sr.No.	Irrigation status	Number	Percentage
1.	Irrigated Land	10	22%
2.	Non irrigated	35	76%
3.	Both	1	2%
	Total	46	100%

3.19 Sources of Drinking water

Table 3.18 reveals that 30 and 35% the respondents depend on well and tap as sources of drinking water.

Table No. 3.18

Sources of Drinking water

Sr.No	Sources	Number	Percentage
1.	Well	58	30%
2.	Handpump	16	8%
3.	Borewell	17	9%
4.	River	18	9%
5.	Stream	13	8%
6.	Pond	2	1%
7.	Tap	67	35%
	Total	191	100%

3.20 Chlorination status

Table number 3.19 clearly indicates that 83% of respondents stated that their drinking water is chlorinated. This certainly means that gram panchayat is doing this duty well.

Table No. 3.19

Chlorination of Drinking water

Sr.No.	Status	Number	Percentage
1.	Chlorinated	105	83%
2.	Not chlorinated	22	17%
	Total	127	100%

3.21 Boiling of drinking water

It was observed that 89% of tribal women do not boil drinking water before use, while 11% do boil it. Table number 3.20 reveals it all.

Table No. 3.20

Boiling of Drinking Water

Sr.No.	Boiling habit	Number	Percentage
1.	Boil	14	11%
2.	Did not boil	113	89%
	Total	127	100%

3.22 Filtering Habit

As evident from table number 3.21 46% of tribal women filter drinking water before use, while 54% do not.

Table No. 3.21

Filtering Habit

Sr.No.	Filtering habit	Number	Percentage
1.	Filter	59	46%
2.	Do not filter	68	54%
	Total	127	100%

3.23 Bathing Habits

It was observed that tribal women prefer to go to a stream or river for bath. Afternoon time is preferred by most women. A question was then asked as to how often do you take bath and the responses were as follows. Table number 3.22 reveals the same.

-Table No. 3.22

Number of baths

Sr.No.	No of baths	Number	Percentage
1.	Once a day	112	88%
2.	Twice a day	15	12%
3.	Once in 2 days	0	0
4.	Once in 3 days	0	0
5.	Once a week	0	0
	Total	127	100%

3.24 Hair Washing Habit

Indian women generally have long and very few use hair drier. It is generally observed that most women refrain from washing hair every day while having a bath. In order to understand hair washing habits of the tribal women a question was asked as to how often they wash their hair. Their responses are given in table number 3.23. The table reveals that 1% wash daily; 17% once in two days ; 50% once in 3 days and 31% once a week.

Table No. 3.23

Hair Washing Habits

Sr.No.	Periodicity	Number	Percentage
1.	Daily	1	1%
2.	Once in 2 days	22	17%
3.	Once in 3 days	64	50%
4.	Once a week	40	31%
	Total	127	100%

3.25 Personal Hygiene

“Hygiene has been defined as the science of health that embraces factors which contribute to healthful living.” Hygiene not only aims at preserving health, but improving it. The purpose of hygiene is to allow a man to live in healthy relationship with the environment. Air, weather, soil, waste, bodily cleanliness, and nutrition are the widely differing concerns of Hygienists. (Park : 1986, 38)

In short, personal hygiene comprises of a broad range of activities such as care of the body regarding bathing and washing, care of clothes, hair, teeth, nails, cultivating good habits of eating, diet, sleep etc. Any disrupting of these activities may impair health.

3.26 What do tribal women use to brush their teeth ?

The responses of the above question asked to 127 tribal women are recorded in table number 3.24.

Table No. 3.24

What is used to brush teeth ?

Sr.No.	Use of stick	Number	Percentage
1.	Neem/Babul stick	19	14%
2.	Paste	6	4%
3.	Tooth powder	0	0
4.	Mishri	14	11%
5.	Salt	0	0
6.	Ash	15	12%
7.	Dant Manjan	35	27%
8.	Coal	41	32%
9.	Others	0	0%
Total		127	100%

3.27 Instrument / Brush used

Table number 3.25 reveals that 7% use brush, 12% use sticks and 82% use fingers to brush their teeth.

Table No. 3.25

Use of brush / fingers

Sr.No.	Use of stick	Number	Percentage
1.	Brush	7	6%
2.	Stick	16	12%
3.	Fingers	104	82%
Total		127	100%

3.28 Brushing Frequency

It was observed that 88% of the tribal women interviewed brush their once teeth a day in the morning. Table number 3.26 throws more light on this behaviour.

Table No. 3.26

Brushing Frequency

Sr.No.	Timings	Number	Percentage
1.	Once	112	88%
2.	Twice	15	12%
Total		127	100%

3.29 What happens when a person does not brush ?

Responses of tribal women regarding the above questions were recorded in table number 3.27.

Table No. 3.27

Perceptions Regarding Not Brushing

Sr.No.	Impact	Number	Percentage
1.	Tooth decay	50	39%
2.	Bad Breath	43	34%
3.	Others	0	0
4.	Don't know	34	27%
Total		127	100%

3.30 Instrument used to cut Nails

Table number 3.28 clearly indicates that 94% of tribal women use blade and 6% nail cutter to cut their nails.

Table No. 3.28

Instrument to cut nails

Sr.No.	Instrument	Number	Percentage
1.	Blade	120	94%
2.	Nail cutter	7	6%
3.	Others	0	0
Total		127	100%

3.31 Nail cutting frequency

Table number 3.29 reveals that 57th tribal women cut their nails once a week.

Table No. 3.29

Nail cutting frequency

Sr.No.	Periodicity	Number	Percentage
1.	Once in 2 days	0	0
2.	Once in 3 days	6	6%
3.	Once a week	73	57%
4.	Once in 15 days	45	35%
5.	Once a month	3	2%
Total		127	100%

3.32 Perception Regarding Nail growth

What happens when a person does not cut his / her nails ? A question was asked to the respondents as to what is perception about the dirt in the nails. Their responses are shown in table no. 3.30.

Table No. 3.30

Nail growth perception

Sr.No.	Perceptions	Number	Percentage
1.	Dirt in the nails leads to stomach problem	25	20%
2.	Don't know	102	80%
Total		127	100%

3.33 Hand Washing Behaviour

Table number 3.31 reveals that 100% of women wash their hands before having meals.

Table No. 3.31

Hand Washing Behaviour

Sr.No.	Habit	Number	Percentage
1.	Wash hands	127	100%
2.	Do not wash	0	0%
Total		127	100%

Similarly, it was observed that most women respondents wash hands before cutting vegetables and cooking meals. This is a good sign of healthy living.

3.34 House cleaning Habits

House cleaning habits of tribal women are recorded in table number 3.32

Table No. 3.32

House cleaning habits

Sr.No.	Frequency	Number	Percentage
1.	Once	18	14%
2.	Twice	102	80%
3.	Thrice	76%	
Total		127	100%

3.35 Use of water after Defecation

Table number 3.33 reveals that 99% of the respondents use water after defecation.

Table No. 3.33

Use of water

Sr.No.	Habit	Number	Percentage
1.	Water	125	99%
2.	Leaves	2	1%
3.	Stones	9	9
4.	Others	0	0
Total		127	100%

3.36 Chewing of Tobacco

It is evident from table number 3.34, that 30% of respondents chew tobacco, while 70% do not.

Table No. 3.34

Tobacco chewing Habit

Sr.No.	Habit	Number	Percentage
1.	Chew Tobacco	38	30%
2.	Do not chew	89	70%
Total		127	100%

3.37 Spitting Habit

It was observed that 5% of the respondents spit in the house, while 95% do not. Table No. 3.35 shows it all.

Table No. 3.35

Spitting Habits

Sr.No.	Habit	Number	Percentage
1.	Spit	7	5%
2.	Do not spit	120	95%
	Total	127	100%

3.38 What happens when flies sit on food ?

The responses of this question are recorded in table number 3.36.

Table No. 3.36

Perceptions regarding flies on food

Sr.No.	Habit	Number	Percentage
1.	Nothing happens	70	56%
2.	Don't know	50	39%
3.	Spreads diseases	7	5%
	Total	127	100%

3.39 How do you solve the problems of Mosquitoes, flies, cockroaches, Bed bugs, white ants ?

Tribal women interview to get their perceptions about how they solve the problem of insects. Their responses were as follows :

Table No. 3.37

Techniques of solving the problem of insects

Sr.No	Insects	Techniques
1.	Mosquitoes	Neem leaves, cowdung cake is burnt to kill mosquitoes.
2.	White ants	Smearing the walls, floor, grain baskets with cowdung and putting neem leaves in foodgrain stores in the basket.
3.	Bed bugs, cockroaches and flies	◆ Are manually killed or chemicals from the market are sprayed to get rid of the same.

3.40 Diseases prevalent among Tribal women.

Major diseases prevalent among tribal women as revealed through the data collected by administering 127 schedules are grouped into four heads namely, skin, digestive, respiratory and other disorders. Table number 3.38 reveals the same.

Table No. 3.38

Diseases Among Tribal Women

Sr.No.	Disorder	Diseases
1.	Skin Disorders	Scabies, chapped heels, chicken pox, fungal infections, Dandruff.
2.	Digestive Disorders	Diarrhoea, dysentery, stomach ache, ulcers, Gastro entrities
3.	Respiratory Disorders	Cough and cold, Asthma, pneumonia
4.	Other disorders	Fever, malaria, menstrual disorders, Gynecological problems, Anemia etc

3.41 Place of Treatment

Table number 3.39 reveals the places of treatment opted by tribal women interviewed.

Table No. 3.39

Place of Treatment

Sr.No.	Place	Number	Percentage
1.	Sub Centre	4	3%
2.	Primary Health Centre	106	80%
3.	Private Doctor	20	16%
4.	Traditional Medical Practitioners	2	1%
Total		132	100%

It is evident from table number 3.39 that 83% of respondents go to the sub centre and Primary Health Centre for treatment. The table also reveals that 15% go to private doctors. This depends on the origin and cause of illness interpreted by the tribals.

3.42 Health Expenditure

An attempt was made to assess how much money is spent on illness by the women. It was observed from table number 3.40 that, 20% of women spent between the Range Rs. 50 to 100; 25% Rs. 101 to 200, 50% Rs. 201 to 500 and 5% Rs. 500 to 1000 range for a particular illness.

Table No. 3.40

Health Expenditure

Sr.No.	Amount Range	Number	Percentage
1.	Rs. 50 to 100	25	20%
2.	Rs. 101 to 200	32	25%
3.	Rs. 201 to 500	64	50%
4.	Rs. 501 to 1000	6	5%
5.	Above Rs. 1000	0	0
Total		127	100%

It may be concluded that, depending on the severity of the sickness, tribals spend money on treatment.

3.43 Tribewise food consumed

Every geographical region is known for producing certain plant species. For example, cactus – the xerophyte is prominently seen in desert or dry regions; Rice is grown in places where there is heavy rain fall and so on. Table number 3.41 reveals tribe and regionwise food consumed.

Table No. 3.41
Tribewise Food consumed

Sr. No.	Tribe	Region	Cereals	Pulses	Oils	Veget-ables	Other food
1.	Katkaris	Sahyadri	* Rice * Ragi * Varai	* Gram * Udid dal * Toor dal * Masoor dal	* Mauha Seed oil * Peanut oil * Khurasni oil	* Amaranthus * Cauliflower * Cabbage * Brinjals * Potatoes * Wild veget-ables	* Chicken * Meat of birds,goat * Pork * Fish/Dry fish * Bandicoots / Rats in times Of crisis
2.	Warlis	Sahyadri	* Rice * Ragi * Varai	* Gram * Udid dal * Toor dal * Masoor dal	* Mauha Seed oil * Peanut oil * Khurasni oil	* Amaranthus * Cauliflower * Cabbage * Brinjals * Potatoes * Wild veget-ables	* Chicken / Meat * Fish/Dry fish * Flesh of birds, deer, wild bear, etc
3.	Korkus	Sahyadri	* Rice * Ragi * Varai	* Gram * Udid dal * Toor dal * Masoor dal	* Mauha Seed oil * Peanut oil * Khurasni oil	* Amaranthus * Cauliflower * Cabbage * Brinjals * Potatoes * Wild veget-ables	* Chicken / Meat * Fish/Dry fish * Flesh of birds, deer, wild bear, etc
4.	Bhils	Satpuda	* Jowar * Bajra * Rice	* Gram * Udid dal * Toor dal * Masoor dal	* Sunflow-er	* Amaranthus * Cauliflower * Cabbage * Brinjals * Potatoes * Wild veget-ables	* Chicken / Meat * Fish/Dry fish * Flesh of birds, deer, wild bear, etc
5.	Korku	Gondwana	* Rice * Jowar * Varai * Wheat	* Chavli * Gram * French beans	* Peanuts * Mauha seeds	* Amaranthus * Cauliflower * Cabbage * Brinjals	* Chicken / Meat * Fish/Dry fish

Sr. No.	Tribe	Region	Cereals	Pulses	Oils	Veget-ables	Other food
				* Mung dal * Soya beans		* Potatoes * Wild veget-ables	* Flesh of birds, deer, wild boar, etc
6.	Kolam	Gondwana	* Jowar * Rice * Vārai	* Chavli * Gram * French beans * Mung dal * Soya beans	* Peanuts * Mauha seeds	* Amaranthus * Cauliflower * Cabbage * Brinjals * Potatoes * Wild veget-ables	* Chicken / Meat * Fish/Dry fish * Flesh of birds, deer, wild bear, etc

All the six tribes studied, consume seasonal fruits that grow in their respective forests. Some of the fruits consumed by them are mangoes, Amla, Papayas, Karvanda, Jamun etc. Small animals such as rabbits, deer, wild boar, are hunted from the forest. Fishing in ponds and rivers using various fishing techniques is a salient feature of all the six tribes studied. Consumption of locally prepared alcohol (Mauha), Toddy and Madi add glamour to their food habits.

3.44 Diet of pregnant women

It is observed from table number 3.42 that no special diet is given to pregnant women in all the six tribes studied, the reasons being, poverty, illiteracy, ignorance and the fear of foetus becoming big, there by creating hurdles for natural deliveries.

Table No. 3.42
Diet of pregnant women

Sr.No.	Diet	Number	Percentage
1.	Special diet given	19	15%
2.	No special diet	108	85%
Total		127	100%

Furthermore, it was observed that lactating mothers too, do not take any special diet. Tribhuvan Robin (1998) has observed that among the Thakars, a woman eats *Dioscorea indica* (corn) for production of more breast

milk. In-depth interviews with medical practitioners and close rapport with them only helps in gaining such sensitive qualitative data.

3.45 Place of Delivery

According to table number 3.43 it is observed that 93% of women delivered at home, while 5% in the medical institutions such as sub-centres, Primary Health Centres and hospitals.

Table No. 3.43

Place of Delivery

Sr.No.	Place	Number	Percentage
1.	At home	118	93%
2.	Medical institutions	6	5%
3.	Did not respond	3	2%
Total		127	100%

3.46 Who conducted deliveries ?

As evident from table number 3.44 that 79% of deliveries are conducted by traditional Midwives, while 5% by Medical and paramedical workers. 16% were conducted by family members.

Table No. 3.44

Personnel conducting deliveries

Sr.No.	Personnel	Number	Percentage
1.	Traditional Birth Attendants	101	79%
2.	Medical and paramedical personnel	6	5%
3.	Family member	20	16%
Total		127	100%

3.47 Consumption Loan

Table 3.45 reveals that 22% of the respondents received consumption loan, while 62% did not.

Table No. 3.45
Consumption Loan

Sr.No.	Status	Number	Percentage
1.	Received	28	22%
2.	Did not receive	79	62%
3.	Did not respond	20	16%
Total		127	100%

3.48 Ration Card Status

It was observed that 96% of the respondents possessed ration cards. Table No. 3.46 shows the status.

Table No. 3.46
Ration Card Status

Sr.No.	Status	Number	Percentage
1.	Possessed	122	96%
2.	Did not possess	5	4%
Total		127	100%

3.49 Benefit from Grain Bank scheme.

It was disheartening to note that 62% of the respondents interviewed were not the beneficiaries of grain bank scheme. Table number 3.47, throws light on the same.

Table No. 3.47
Benefit from Grain Bank Scheme

Sr.No.	Status	Number	Percentage
1.	Benefitted	37	29%
2.	Did not benefit	79	62%
3.	Did not respond	11	9%
Total		127	100%

3.50 Hours Incurred by women in working

Tribal women spend more hours in managing households, agriculture and foraging working than the men. It is evident from table number 3.48 that 68% of women work for 7 to 10 hours, 21% for 10 to 14 hours and 0.7% above 14 hours a day.

This certainly shows on their health and life span. Girls who get married early, produce children early and keep working hard, begin to look old early.

Table No. 3.48

No. of Hours of work

Sr.No.	No of hours	Number	Percentage
1.	5 to 7	5	4%
2.	7 to 10	87	68%
3.	10 to 14	27	21%
4.	Above 14	1	0.7%
5.	Did not respond	7	5.5%
Total		127	100%

3.51 Deaths of women in the family

Out of the total number of families interviewed it was observed that 3% women died of causes such as sickness, gynecological and old age problems. The estimated period of deaths calculated was last 5 years.

3.52 Use of Sanitary pads

A question was asked to women as to what do they use during menstrual period. As per table number 3.49 it was observed that 57% use cloth. Most of them use the same cloth for the next month till it tears. It was observed that the cloth is not washed with soap. Out of the 57% women who used cloth, 64% did not wash cloth with soap.

Table No. 3.49**Use of sanitary pads**

Sr.No.	Type of sanitary pads	Number	Percentage
1.	Cloth	72	57%
2.	Cotton	0	0
3.	Gauze	0	0
4.	Sanitary pads	0	0
5.	Leaves	0	0
6.	Did not respond	55	43%
Total		127	100%

3.53 Treatment to Barren women

Table No. 3.50 reveals that 7% of respondents said that barren women are not allowed to participate in religious / fertility rituals.

Table No. 3.50**Barren women and rituals**

Sr.No.	Participation status	Number	Percentage
1.	Allowed	63	50%
2.	Not allowed	9	7%
3.	Did not respond	55	43%
Total		127	100%

The Thakars of Nagewadi do not allow a barren woman to enter a labour room. They believe her entry may lead to an hindrance in the safe delivery process. Sometimes, pregnant women do not interact with a barren woman (Tribhuvan Robin 1998).

3.54 Treatment of Mentally ill women

Table numbers 3.51 and 3.52 reveal the treatment of mentally ill women.

Table No. 3.51

Where do they live ?

Sr.No.	Place	Number	Percentage
1.	House	65	51%
2.	Separate House	0	0%
3.	Outside the village	9	7%
4.	Temple	0	0%
5.	Community Hall	0	0%
6.	Did not respond	53	42%
Total		127	100%

Table No. 3.52

Do Mentally ill women get married ?

Sr.No.	Response	Number	Percentage
1.	Get married	34	27%
2.	Do not marry	38	30%
3.	Did not respond	55	43%
Total		127	100%

3.55 Awareness about Matrutva Anudan Yojna

Table number 3.53 reveals that 40% of the women interviewed were aware of the scheme.

Table No. 3.53

Awareness of Matrutva Anudan Scheme

Sr.No.	Awareness	Number	Percentage
1.	Aware	5	40%
2.	Unaware	76	60%
Total		127	100%

Furthermore, it was observed from Table number 3.54 what they do with the money received by them.

Table No. 3.54

Money Received through the scheme

Sr.No.	Expenditure	Number	Percentage
1.	Bought food/ration	38	30%
2.	Bought clothes	51	40%
3.	Bought ornaments	13	10%
4.	Others	25	20%
Total		127	100%

3.56 Use of contraceptives

A question was regarding what contraceptive measures do you use ? Their responses were as follows :-

Table No. 3.55

Use of contraceptives

Sr.No.	Contraceptives	Number	Percentage
1.	Condoms	2	2%
2.	Oral pills	19	15%
3.	Copper T	5	4%
4.	Traditional Methods	4	3%
5.	Did not respond	97	76%
Total		127	100%

3.57 Small Family Norm Perception

A question was asked to find out how many children do you have and the responses are :-

Table No. 3.56

Children in the family

Sr.No.	No. of children	Number	Percentage
1.	One or two	60	47%
2.	Two to four	50	39%
3.	Four to six	8	6%
4.	Above six	2	2%
5.	Did not respond	7	5%
	Total	127	100%

3.58 Ideal Family

Yet another question was asked to know how many children should a woman have ? The responses are :-

Table No. 3.57

Ideal number of children

Sr.No.	No. of children	Number	Percentage
1.	One	0	0
2.	Two	66	52%
3.	Three	1	1%
4.	Four	27	21%
5.	Above five	3	2%
6.	Did not respond	30	24%
	Total	127	100%

3.59 Discussion

Some one has rightly pointed out that educate a woman, educate a nation. Women as mothers, grandmothers, wives and sisters have been pillars of human families. Their concepts regarding disease, health, nutrition, well being etc. depends to a great extent on their social, educational, economic, political status and their freedom to express and

take decisions, within their socio-cultural system. Secondly, freedom also means how they co-related themselves to the impact of modern and scientific world view.

Tribal health is certainly associated with women's social, economic, educational, political and cultural status. This study has revealed that the shadow of ignorance, superstitions, illiteracy, poverty, political isolation from the main stream still prevails among tribal women. These indicators have been dealt in Chapter one of this report. Given this background, we wish to highlight certain fragments of the data which remind us that the area of health of tribal women needs to be taken seriously. Based on the empirical findings here are some facts that call for serious attention of policy makers.

- **Educational status**

It is said that higher the educational status, higher the degree of health consciousness. Our data revealed that 80% of the women interviewed were illiterate, 7% studied upto primary and 13% upto high school. Lower the educational status, lesser the scientific knowledge of health and nutrition.

- **Age at Marriage**

Table number 3.5 clearly indicates the 10% of the women interviewed got married within the age range 13 to 15 years, while 59% got married between the age range 15 to 18. This means that 72% of the women interviewed got married between the age 13-18 years. Tribhuvan Robin (1998) in his book captioned, "Medical world of Tribals" has revealed that the Thakars get their girls married when they are 12 to 16 years, and boys between the age 15 to 20 years. He has further revealed that the Thakars believe that a spinster or bachelor dies, her/his soul does not migrate to heaven, it becomes an evil spirit. A boy's spirit becomes "Munja"(white skinned spirit), and "Khais"(blue black deformed spirit). These spirits have sex with normal women and produce "Albinos" and "Congenitally deformed" babies. These children are considered to be offspring of the evil spirits. What is evil, must go back to the evil world? This logic forces the tribe to kill the albinos and congenitally deformed children. The midwife (Suine) hence kills the child using two methods namely suffocation i.e. by covering the new born under a basket smeared with cowdung or by choking the throat of the child. This done with the consent of the parents and the head of the house. Tribhuvan Robin (1998)

- **Age at First Pregnancy**

The study revealed that 35% of the women interviewed became pregnant during the age range 15 to 18 and 50% during the age range 18 to 21 years. The western and modern style of getting married is so different. A modern and western girl gets married between the age range 28 to 35 years, becomes pregnant after two years of married life and sees to it that her new

born gets all the facilities and amenities which her parents did not have. Well, that the analogy between a tribal and an urban / western woman.

- **Concept of birth date**

Out of the total number of tribal women interviewed 85% were not aware of their own birth dates. It only reveals their ignorance, of the women. Similarly 83% of the respondents were not aware of their husband's birth date.

- **Abortions**

Out of the 127 tribal women interviewed 12 % had undergone abortions. Out of the 12 women who had abortions 67% had once and 33 had twice. Further, more, 62% had their abortions at home ; while 38% opted for intentional abortions. Table 3.12 reveals that 50% of the abortions were conducted by medical and paramedical personnel and the rest 50% was conducted by Traditional Medical Practitioners.

- **Family Size**

The significance of small family norms among the tribals seems to be successful. Table number 3.13 reveals that 53% respondents had a family size of 1 to 4, while 34% had 4 to 6 and only 12% had 6 to 8 members. Tribal women are certainly conscious of small family norms. Table number 3.58 is certainly justified by revealing that 47% of the tribal women interviewed had 1 or 2 children.

- **Personal Hygiene**

Facts regarding personal hygiene of the tribal women are as follows :

- **Bathing**

88% take bath once a day, while 12% take bath twice a day. This means the practice of bathing every day is certainly there among the women studied. It was however, observed that the soaps used by them are produced by local companies and are cheap.

- **Hair washing habits**

Data has revealed that 50% of the women interviewed wash their hair once in three days and 31% wash once a week. This indicates that this area needs to be part of health education.

➤ **Brushing Habits**

It is observed that 82% of the women interviewed use Ash, tooth powder (dant manjan), Mishri (tobacco), coal and salt to brush their teeth. Table number 3.25 further reveals that 82% of the respondents use fingers to brush their teeth. This means that the particles stuck in between the teeth do not come out. This further creates problems of teeth decay and dental carries. Interviews with Primary Health Centre Doctors reveal that teeth decay is a problem of concern, among the tribals.

➤ **Nail cutting habits**

The habit of cutting nails among the respondents seems to be good. 94% cut nails with blade. 57% cut nails once a week, while 15% cut once in fifteen days. However, 80% women felt that if nails are grown that has nothing to do with germs entering in the stomach.

➤ **Washing Hands before meals**

The data gathered reveal that 100% of the respondents wash hands before having meals.

➤ **House cleaning habit**

All the respondents interviewed clean their house every day. Generally, tribal houses and villages are clean as compared to the slums.

➤ **Diseases prevalent**

Data collected through interviews with respondents and Primary Health Centre staff revealed that following diseases are common among tribal women.

➤ **Skin Disorders**

Scabies, chapped heels, chicken pox, fungal infections, dandruff.

➤ **Digestive Disorders**

Diarrhea, Dysentery, stomach ache, ulcers, Gastro enteritis.

➤ **Respiratory Disorders**

Cough and cold, Asthma, Pneumonia

➤ **Other Disorders**

Fever, Malaria, Menstrual disorders, gynecological problems, Anemia etc.

• **Place of Delivery**

The data revealed the 93% women deliver at home. 79% of the deliveries are managed by T.B.As. This indicates that there is an urgent need to train T.B.As., give them delivery kit, First Aid Kit etc. In fact, the T.B.As. should be given an honorarium in kind such as a sari, blouse, coconut, hen as it is given in their cultural system. This will certainly boost their masale.

• **Hours incurred in Manual work**

68% of women interviewed work between 7 to 10 hours, 21% between 10 to 14 hours. Most of them are involved in household, agricultural as well as daily wage labour. Some of the broad jobs done by the are as follows :-

A) Household work load

- cooking
- washing clothes / dishes / vessels
- grinding
- pounding
- cutting and washing vegetables
- sweeping and cleaning the house and courtyard.
- Stitching
- Child rearing
- Cattle rearing
- Collection of minor forest produce
- Collection fuel / fire wood
- Storage of food grains
- Maintenance of the house etc.

B) Agricultural work load

- preparing the land
- preparing farm yard manure

- sowing
- weeding
- harvesting
- threshing
- storing etc.

C] Daily Wage Labour

During off agricultural seasons women are made to earn money through daily wage labour. To sum up, a tribal woman is loaded with several jobs including child rearing. This certainly affects her health and has an impact on life span too.

• Housing structure & Health

In his book captioned, "Tribal Housing Issues", Tribhuwan Robin (2005) has shown the co-relation of tribal health & housing. Houses of most tribal communities have less or no ventilation ; there is darkness and dampness in the house. Houses become smoky when they cook. The damp and cold floor gives rise to respiratory disorders among their infants and children who wore less or no clothes.

Secondly, among some tribes, cattle are considered to be family members and hence are tied in the house. This too gives rise to disease. In his book captioned, "Medical World of Tribals", Tribhuwan Robin (1998) has documented illness episodes of the Thakar tribe, that reflect the impact of breach of construction taboos giving rise to illness. Among the Thakars, their house doors do not face south, as they believe the direction has evil forces, that may cause illness, misfortune or bad luck, to the family members.

Indepth interviews with the six tribes studied revealed the same findings. The Katkaris and Dhor Kolis of Maharashtra, who temporarily migrate to brick kilns, live in shacks made up of maize or jowar stem or some times with brick without any cement. While, the parents are working hard at the brick kilns, their children are left to the mercy of the nature. The kids have to bear the scorching heat, extreme cold conditions and be victims of snake bites, scorpion stings, polluted water etc.

• Awareness about health schemes

It is disheartening to note that tribal women are not aware of the health and nutrition schemes of the Government. This study has revealed that 60% of the women interviewed do not know about Matrutva Anudan Yojna. Giving Rs. 400/- alongwith medicine is fine, but, making them understand why they are receiving it is equally important. Once they are motivated, they understand and when they

understand they accept. Everything depends on how the A.N.M's develop rapport with the tribal women.

- **Diet during pregnancy and lactation**

The study revealed that 85% of the respondents, interviewed did not take any special diet during pregnancy. The same is the case during lactation. This certainly calls for changing the attitudes of tribal women, through informal health and nutrition education programs.

- **Beliefs Regarding Food and Medicine**

All the six tribes studied have beliefs and practices regarding the intrinsic qualities of food and medicine and their impact on human health. Table number 3.41 in the third chapter of this book throws mere light on this aspect.

- **Habit of Filtering and boiling water**

Table number 3.20 in this chapter shows that 89% of the tribal women interviewed do not boil drinking water. Further more table number 3.21 reveals 54% do not filter the same before drinking. This is certainly a matter of concern. Dr. N.S.Deodhar, a W.H.O. consultant says that 65% of the water borne diseases could be controlled if safe and clean drinking water is provided to people. Tribals are no exception to this rule.

Given this background, it is clear that Health of tribal women have two sides of the coin (I) Their traditional beliefs and practices regarding health and disease and secondly (II) The impact of Modern Health Care and education on their lifestyle. What is important at this juncture of time, is build on what is available. Keeping in view their social, educational, economic, political background and their cultural psyche need based, health and nutrition programs should be developed, for tribal women. Secondly elevation of their social, educational, economic, political status and world view will certainly make a difference.

* * *

Chapter Four

MEDICAL RESOURCES AMONG TRIBAL WOMEN

4.1 Medical Resources : Concept

The term resource refers to "means" owned or possessed by an individual, a family, group, society or a nation. In his paper captioned "Tribals & Biodiversity : Perspectives in Maharashtra", Tribhuwan Robin (2003 : 43) has defined the term medical resources as the natural and human resources in a given eco-cultural system. He further classifies the medical resources in tribal cultures under two broad categories namely :

i. Natural Medical Resources

ii. Human Medical Resources

i. Natural Medical Resources

Under this broad category he has classified :

- Medicinal Herbs/Plants
- Medicines extracted from various bodily parts of animals, birds and insects
- Medicines extracted from minerals, salts and other natural substances.
- Hot and cold water
- Diet from fruits, vegetables, grasses etc.
- Sun rays
- Medicinal clay / earth

ii. Human Medical Resources

In the second category Tribhuwan, has classified key personnel or ethnomedical specialists within tribal societies such as ;

- Shamans - Bhagats
- Bone setters - Had Vaidu

- Herbalist - Vaidu
- Traditional Birth Attendants - Dai
- Elderly people, who have vast knowledge about medicines from the forest.

Thus, to sum up the concept of medical resources in tribal culture it can be concluded that every tribe which has been living in an ecological habitat, be it a desert, a forest, valley, plain land, coastal area has produced ethnomedical specialists who studied the medical properties of the naturally available resources, tried them and have been using them for ages. Given this background let us define the medical functions of the ethnomedical specialists in tribal cultures.

4.2 Nature & Role of Ethnomedical Specialists

In the context of medical pluralism, a wide variety of medical specialists both traditional as well as modern co-exist whose services a patient may avail to. However within a traditional system different specialists may be available including herbalists, shamans, bone setters, priests and midwives.

A shaman is a man or woman who has one or more spirit at his / her command to carry out his / her bidding for good or to cure persons affected by other spirits or other shamans or simply acting on their own violations (Harner, M 1973 :ix)

A priest on the other hand is a religious functionary, whose supernatural authority is bestowed upon him by a cult or an organization. In contrast to a shaman, he derives his powers directly from the supernatural sources (Hoebel 1958 :657). In most societies the priest also plays important role by performing healing rites.

Bone setters provide treatment for mechanical injuries such as sprains, broken bones, massaging and branding techniques also are part of mechanical therapies. Bone setters have a sound knowledge about the positions of bones, nerves, veins and arteries in the human body (Kurian J.C. and Tribhuwan Robin 1990: 255).

Mary Schutlur (1979-22) refers to a midwife as one who is always a female and is necessarily not a diviner. Her duties are to give advice and medical aid to expectant mothers, to assist in deliveries and to treat illness that may be fall the new mother and child . To fulfill her duties a mid-wife prescribes a few herbal medicines, knows massage techniques and recommends a proper diet for the new mother and child.

A herbalist is one who may / may not use magico-religious elements in herbal therapy. He also advises his patients on diet to be taken during

ill-health. Besides administering herbal medicine, herbalists also administer medicines extracted from animal sources (Tribhuwan Robin and Peters Preeti 1993 : 21).

The nature and roles of ethnomedical specialists may however differ from one society to another in their study of the traditional medical practitioners of Sahyadri Kurian and Tribhuwan (1990 : 251-294) have shown that there are seven types of medical specialists in the Thakur tribe. These are Bhagats, Bhagatins, vaidus, Had Vaidus, Mantrika, Suines (midwives) and the potdharies (assistant mid-wives). Not every society may have all the types of medical specialists.

All these medical specialists are looked upon with respect by their community members for their medical skill, knowledge and of course for the health services that they render. However, ethnomedical specialists are not full time professional practitioners but are dependent on other economic activities for livelihood, like other members of their community.

Qualifications for folk medical roles vary considerably. In some cases, formal training is required for the practitioners (Metzger and Williams 1963) in others a long apprenticeship is customary. Our data have revealed that a post of medical specialists is hereditary, as medical knowledge is restricted to a particular clan or family in a community. However, there are exceptions to this rule (see Table 4.1)

Table 4.1

Procedures of Acquiring Medical speciality

Sr.no.	Practitioner	Tribe	Procedure of Acquiring Medical Speciality	
1	Shamans	Th	a)	Medical skill passed on from father to son.
		Ka	b)	A true devotee of sun may get instructions (from divine power in a vision)
			c)	A master shaman chooses to train a devotee of Gods and Goddess of the concerned tribe.
2.	Midwife	Th Ka	a)	Skill passed on from mother-in-law to daughter-in-law.
		Wa	b)	From mother to a married daughter residing in the village, or

Sr.no.	Practitioner	Tribe	Procedure of Acquiring Medical Speciality	
			c)	From a midwife to assistant midwife.
3.	Herbalist & Bone setter	Th Ka Wa Bh	a)	Medical skill passed on from father to eldest son. In case no son brother's son.
				Or
			b)	A true devoted student who intends to learn the skill by requesting a master.

Note- Th- Thakar, Ka-Katkari, Bh-Bhil, Wa-Warli

A therapist may be specialized in one or more skills. Depending on ones skill a therapist has specific role and function to play in the healing process. Thus shamans (Bhagats and Badvas) in all the four tribes known magico-religious as well as herbal therapy and practice both. Whereas, a suine among Thakurs, Katkaris and Warlis and a Huvarki among the Bhils is specialized in only mechanical therapy. Table 3 shows the different medical roles and functions of the ethnomedical specialists prevalent among four tribes studied. (Tribhuvan Robin & Gambhir R.D., 1995)

Table 4.2

Nature and role of Ethnomedical specialists : A cross cultural view

Sr. No.	Tribe	Specialist	Function	Method of Diagnosis	Therapy Employed
1	Th	Bhagat (Shaman)	-Diagnosis and interpretation of cause of illness -Performing of healing rites -Protective functions: Warding of evil effects -Ordination of other bhagats	A Thakur Bhagat takes a metal pot (tumbler) adds water and a pinch of ash from the hearth & then faces the east (divine) direction he spins the tumbler. Slowly in anticlock fashion.	Magico religious & herbal therapy.
2	Wa	Bhagat (shaman)	-Diagnosis and interpretation of cause of illness -Performing of healing rites -Protective functions :- warding off evil	The Bhagat of warli tribe uses a grain shifter in which small grains are made. This helps him to diagnose a	Magico religious & herbal therapy

Sr. No.	Tribe	Specialist	Function	Method of Diagnosis	Therapy Employed
			effects, spirit & forces. --performing thanks giving rituals. -Offering sacrifices on behalf of the patient.	patient's illness.	
3	Ka	Bhagat (shaman)	-Diagnosis and interpretation of cause of illness -Performing of healing rites -Protective functions :- -warding off evil effects, spirit & forces. --performing thanks giving rituals. -Offering sacrifices on behalf of the patient.	A katkari Bhagat uses an iron sickle (Koyta) to diagnose illness. He sticks a metal coin to the sickle during the diagnosis ritual to trace the patient's illness.	Magico religious & Herbal therapy
4	Bh	Badva (shaman)	-Diagnosis and interpretation of cause of illness -Performing of healing rites -Protective functions :- -warding off evil effects, spirit & forces. --performing thanks giving rituals. -Offering sacrifices on behalf of the patient.	A Bill Badva uses precautorius (gunj) seeds and sorgum vulgarisre (Jowar) grains to diagnose illness. He spreads a cloth on the floor & arranges heaps of these seeds on the basis of which he determines the cause of illness.	Magico religious & Herbal therapy
5.	Th Ka Wa	Bhagatin (female shaman)	--same as bhagats--	A female shaman gets into trance diagnose cause of illness.	Magico religious & Herbal therapy
6.	Bh	Badvi (female shaman)	--same as bhagats--	--same as above--	--same as above--
7.	Th Ka	Vaidu (Herbalist)	-Collection preparation and administration of	-Checking the pulse and -feeling the body temperature.	Herbal therapy

Sr. No.	Tribe	Specialist	Function	Method of Diagnosis	Therapy Employed
	Wa		herbal medicine	-Observing skin colour -Asking patient about illness	
8.	Th Ka Wa	Hadvaidu (bone setters)	-Setting broken bones, massaging swelling and sprains -Branding bodily areas of severe pains with hot iron rod. -Application of medicinal extracts.	Observing and feeling the broken bones, swelling & sprains.	Mechanical & Herbal therapy
9.	Th Ka Wa	Suine (midwife)	-Medical advice to expectant mothers -Attend deliveries -Recommend diet for the mother & child. -Bathing new born, performing birth rituals. -Burying umbilical cord of the new born. -washing clothes of the new born for a week or two. -Administration of herbal medicine for gynecological problems.	Palpitating & by feeling the body of child or mother	Mechanical & Herbal
10.	Bh	Huvarki (midwife)	-Medical advice to expectant mothers -Attend deliveries -Recommend diet for the mother & child. -Bathing new born, performing birth rituals. -Burying umbilical cord of the new born. -washing clothes of the new born for a week or two. -Administration of herbal medicine for	Palpitating & by feeling the body of child or mother	Mechanical & Herbal

Sr. No.	Tribe	Specialist	Function	Method of Diagnosis	Therapy Employed
			gynecological problems.		
11.	Th Ka	Potdhari (assistant)	Assists the suine in deliveries and in her absence manages deliveries/	Palpitating & by feeling the body of child or mother	Mechanical & Herbal
12	Th	Mantrik (Specialized Herbalist)	A mantrik uses both rituals & herbal proced-ures to cure scorpion stings & snake bites.	Checking the depth of the sting and mark of the snake bite to know the intensity of the poison.	Herbal & Magico ritualistic therapies.

Note- Th- Thakar, Ka-Katkari, Bh-Bhil, Wa-Warli

4.3 Human Medical Resources Among the Tribes studied

The researchers studied Bhils, Warlis, Koknas Korkus, Kolams and the Katkaris so as to understand the health of women in these tribes. In this section of the chapter an effect is made to present the human medical resources among the six tribes studied. Table number 4.1 presents the glimpses of the same.

Table No. 4.3
Human Medical Resources

Sr.No.	Tribe	Human Medical Resources		
1.	Bhil	i)	Budva	Male shaman
		ii)	Budvi	Female shaman
		iii)	Huvarki	Female Traditional Birth Attendant
		iv)	Had vaidya	Bone setter
		v)		Male Birth Attendants
		vi)	Herbalist	Vaidu
2.	Katkari, Warlis & Kokanas	i.	Bhagat	Male Shaman
		ii.	Bhagtin	Female shaman
		iii.	Dai	Female Traditional birth Attendant
		iv.	Vaidu	Herbalist

Sr.No.	Tribe	Human Medical Resources		
		v.	Had Vaidu	Bone setter
		vi.	Mantrik	Herbalist specialized in snake bites and scorpion stings.
		vii.	Pot dhari	Assistant Midwife
3.	Korkus	1.	Bhoomka	religious functionary who has knowledge of medicine. He is popularly known as bhoomka baba.
		2.	Padyal or parihar	male shaman
		3.	Bhavani	female shaman
		4.	Had Guru	Bone setter
		5.		Herbalist
		6.	Suine	Traditional Birth Attendant (female)
4.	Kolam	1.	Supari	Male shaman
		2.	Suparin	Female shaman
		3.	Matte Murtal	Midwife (female)
		4.	Pole supari	is a male shaman who assists the main shaman supari.
		5.	Vaidya	Herbalist
		6.	Mantrik	is one who removes evil spirits from the Patients body

As evident from table number 4.3 that every tribe is blessed with ethnomedical specialists who have been providing health services to their tribesmen since ages. Their tribesmen respect them and look upon them as therapists, diviners and interpreters of supernatural phenomena. We feel that the role of these traditional healers is very significant in modern health care provided by the Primary Health Centres and Sub Centres. Grass root level posts such as Anganwadi workers, Attendants, A.N.Ms. Peons, Pada workers etc.

4.4 Medical knowledge of Tribal Women : A base to begin with !

Tribals world over have been living in the forests, valleys, on the mountains and hills, in isolation for ages. Their knowledge of climate, the plants, animals, insects and cosmos is something worth admiring. Experiments in tribal cultures such as interpreting the exact date of the rain, various techniques of making fire; boats and canoes without nails, medical knowledge etc. is highlighted in the book.

The point, we want to make here is that, tribal women's medical knowledge is worth documenting. For example, it is a known fact that over 90% of the deliveries are conducted at home by Traditional Birth Attendants or relatives at home. These TBAs have been into this profession for years. It is necessary to document their knowledge and practice about deliveries, gynecological problems, women's health, pregnancy, development of foetus etc., so as to introduce scientific interventions keeping in view the health of tribal women.

4.5 Medical knowledge to be documented.

A Chinese proverb goes on to say, go to the people, live with them, understand them, know what they have and build on what they have. In fact, the first Prime Minister of the country Late Pandit Jawaharlal Nehru in his "Panchsheel" – five principles of Tribal Development, clearly mentioned that the tribals should be developed on the lines of their genius, meaning we should build on what is available with them and not impose our beautiful ideas that are planned without considering the insiders view and the ground reality.

Given this background, efforts should be made by health, medical and social scientists to document the perceptions of Tribal women regarding following aspects of health and nutrition from an insiders (their) perspective.

- **Disease**

- Origin & cause of diseases.
- Classification of diseases.
- Nature and role of natural and supernatural pathogenic agents

- **Body Image**

- Constituents of body.
- Concept of life, soul breath, flesh blood and bodily fluids.
- Body physiology and anatomy.
- Reproduction.
- Aging.
- Concept of ill-health, aging and death.
- Health & direction symbolism.
- Maternal and child health care beliefs and practices.

- Child rearing practices.
- Influence of hot and cold foods on the body.
- Menstruation and behaviour.
- **Therapies**
 - **Herbal therapy** – Various medicinal herbs and techniques of their administration
 - **Mechanical therapy** – including massage, bone setting, branding etc.
 - **Magico – religious therapy** – therapies to diagnose, please or ward off supernatural pathogenic agents or forces.

- **Nature and Role of women ethnomedical specialists**

Yet another area that needs to be documented is the nature and role of women medical practitioners in tribal cultures.

- **Home Remedies**

Besides women practitioners, every elderly tribal woman has knowledge of home remedies to cope up with minor sickness. This knowledge base is important too, and needs to be documented.

Documentation of medical knowledge of tribal women by medical, health and social scientists from an insider's perspective will help in formulating appropriate and culture specific health care and educational policies for tribal women.

4.6 National policy for Tribals

The draft national policy 2004, stressed the need of documenting the vanishing tribal wisdom, including medical knowledge and more importantly protecting Intellectual Property Rights (IPR) of tribals. The Government of India, through the Ministry of Tribal Affairs, is keen and firm on preserving tribal wisdom and protecting their IPR. This will happen only with the support and co-operation of the State Governments and ofcourse once the policy takes final shape, legally. Simultaneously, there is a need to replenish forests, because the rate of forest depletion has caused a threat to tribal survival. A serious thought needs to be given to this aspect. The tribal policy is keen to preserve, promote and document traditional knowledge and wisdom, establish a centre to train tribal youth in this area and to disseminate such knowledge through models and exhibitions. Secondly, the tribal policy proposes to make legal and institutional arrangements to protect their Intellectual Property Right (I.P.R.).

4.7 A Plan for Mobilizing Medical Resources Among Tribal women

In order to build on what is available among tribal women in particular, we suggest an action plan to mobilize medical resources among them so that the tribals are benefited. The plan goes as follows :

A] Identification & Documentation Phase

The Tribal Development Department needs to identify key informants and traditional women medical practitioners. In fact ITDPwise directories of women medical practitioners can be published by the Commissionerate, Tribal Development, Nashik or Tribal Research and Training Institute, Pune.

B] Documentation of Medical knowledge

The second phase will involve detailed documentation of women medical practitioners and elderly women regarding health, nutrition, disease, body image, medicine etc.

C] Regional Level Workshops

Regional level workshops of the women medical practitioners and experts from medical, health and social sciences needs to be organized to have a dialogue so that their knowledge could be taken to the masses with a scientific base. Secondly, the workshop should also address issues such role of these women in primary health care, training needs, financial incentive co-ordination etc. The report of this workshop, should then be discussed with the Secretaries of Public Health, I.C.D.S. and Tribal Development so as to work on a finance / funding package. Following which budget should be allocated for the same.

D] Funding these women

Through Nucleus budget, 275(1) and Special Central Assistance these women can be funded to cultivate medicinal plants, start local stalls in their villages, towns and local markets and fairs. The I.T.D.Ps can take up such programs.

E] Exhibition-cum-Sale

The Tribal Research and Training Institute organized an exhibition-cum-sale of tribal medicines in Pune during the 1999. On the same lines Traditional women Medical Practitioners from various I.T.D.Ps. could be summoned to 3 to 4 cities in the State, so as to organize exhibition and sale of their medicine. This will be a source of income and publicity for the medical practitioners. Besides this, these women will also get exposed to

the urban world. Their T.A./D.A. could be borne by Tribal Research and Training Institute, Pune.

F] Training Package

Experts from medicine, health sciences, Anthropology, Sociology, Social Work, Botany, Ayurveda etc. should be requested by I.T.D.Ps. or Tribal Research and Training Institute to train the tribal women in following scientific areas of health and nutrition. Some of the areas of training could be as below :

- An introduction to human body : its structure, function and physiology.
- Properties of Medicinal plants
- First Aid
- Importance of Delivery kit.
- Scientific symptoms and causes of disease
- Mother and Child Health Care.
- Significance of boiling drinking water.
- Health and Nutrition schemes for tribals.
- Significance of Immunization.
- Significance of maintaining certain documents such as ration / election cards etc.
- Registration of births and deaths.

Tribal Research and Training Institute and the Health Department could develop training material for these women. The State Government could allocate budget for this purpose.

G] Preservation of their wisdom

The traditional medical women practitioners should be motivated to pass on the knowledge to tribal girls besides their disciples, children and daughters-in-law. In doing so, their knowledge will remain in their society.

H] Involvement in Primary Health Care

It is necessary to involve tribal women and traditional medical practitioners in Primary Health Care. The Government of Maharashtra has

already taken initiative to employ tribal women as Pada Workers and I.C.D.S. workers. Educated women/girls could be employed as A.N.Ms., Health Assistants, Health educators.

Every Primary Health Centre in tribal areas must have a I.E.C. Unit, i.e. Information, Education and Communication Unit, which will be responsible for carrying out Health Education activities within the Jurisdiction of that Primary Health Centre.

I] Reforestation and Cultivation

Rapid depletion of forest has been a threat to tribal survival. The Ashram Schools, Zilla Parishad Schools, Gram Panchayats, traditional tribal Panchayats and tribal medical practitioners should be motivated and provided finance to promote;

- i. Tree plantation
- ii. Cultivation of medicinal plants
- iii. Kitchen gardens

This can be done on village grazing land, fallow land spaces, behind the houses, in school premises and even on waste land. In fact, for building resource base of tribal medicine this suggestion needs to be taken seriously.

J] Irrigation facilities and water conservation

Majority of tribal communities in Maharashtra and rest of India, bank on rains for cultivation, with few exceptions. From November to May they do not cultivate, due to lack of irrigation facilities. It is recommended that irrigation facilities and water conservation projects need to be implemented on priority to protect tribal bio-diversity.

Mobilization of medical resources in tribal cultures will largely depend on how efficiently the above suggestions are implemented by both N.G.Os. and the concerned Government Departments.

Chapter Five

MATERNAL HEALTH CARE BELIEFS AND PRACTICES

5.1 The Rationale

India has a tribal population of 843 lakhs, as per 2001 census, which amounts to 84 million. As rightly pointed out by Anthropologists, that Health is an aspect of culture, hence health seeking behaviour of a given tribe depends to a great extent on their perceptions regarding origin and cause of illness.

For example, a tribal patient may be having fever, but if the shaman (Bhagat) diagnoses and interprets the cause of fever to wrath of Gods and Goddesses, spirits or cosmic forces or possession by evil spirit, the course of treatment takes a different turn. What is believed to be caused spiritually needs to be healed spiritually and hence (Shaman/Bhagat) spiritual cure. Fever of this sort cannot be healed with injection, tablets or allopathic therapy, as both patient and his family members believe that the origin and cause of the fever is due to intervention of supernatural forces. They take the word of the Bhagat as gospel truth, as he is considered to be a diviner and an interpreter of supernatural phenomena.

- **Why study Beliefs and Practices Regarding Maternal Health.**

Majority of tribal women are illiterate or have studied upto primary level. Their ideas regarding health, disease, diet, body image, influence of heat and cold etc. are culture specific. They are not based on germ or virus theory. From the view point of tribal women who have not studied science, physiology, anatomy etc. this argument is right.

The point here is although they are ignorant, shy, illiterate, superstitious, isolated etc. they are part and parcel of a democratic system that promotes equality, freedom and a right to live a dignified life. To develop these women, it is necessary to know what they think about their health. Data on their views about their health and nutrition from their perspective will help policy makers to plan culturally appropriate programs for tribal women.

Given this background, the present chapter throws light on following aspects of Maternal Health of Tribal women.

- **Body Image**
 - Ethno anatomy
 - Ethno physiology
 - Elements that constitute body
- **Disease Etiology & classification**
 - Origin and cause of disease
 - Cross cultural examples
- **Properties of Diet and Medicine : Perceptions**
- **Reactions to Primary Health Care Programs.**

5.2 Body Image

Use of human body as a symbolic material has been discussed by Anthropologists and analyzed in allied disciplines (Joshi 1992:9). As a symbolic instrument a person may use his body as a means of communication, to indicate by bodily actions or with reference to some abstract idea which is meaningful to him. As Mauss puts it, 'the human body is the first and most natural instrument of man' (1950 : 372). Human body as a symbolic instrument conveys meanings and is used as a means of communication. Meanings of bodily symbols are situationally defined and expressed within the cultural context.

A] Body as a divine, cosmic, or spiritual symbol

It was observed among all the tribes studied, that the Bhils, Warlis, Koknas, Kolams, Katkaris and Korkus that when a man or woman is afflicted by chicken pox (Devi/Baya), these tribes associated the cause to visitation of female goddesses, called "devi or baya". In this context the body is viewed as a divine symbol.

In his book captioned, "Medical World of tribals", Tribhuvan Robin (1998) has revealed that the Thakars associated cause of chicken pox to visitation of "baya" – planetary spirits, (sisters of mother earth) i.e. the other nine planets. In such a context the body of a patient becomes a cosmic symbol.

Similarly when a woman or man is possessed by an evil spirit, her physical body is taken over by an evil spirit. She/he is called by the name of the spirit that takes charge of the patient's atma (soul). The patient loses his/her social identity in such a context.

B] Body : A symbol of Ancestral spirits.

Among the Warlis, Katkaris, Koknas, Thakars, Mahadev Kolis, Malhar Kolis and Dhor Kolis of Western Maharashtra, "Tak cult" is very popular. A sonar (gold smith) who is mostly a tribal, prepares manually a copper or led triangular small motif on which is engraved an image of an ancestral or clan spirit. "Vir" is a male ancestral spirit, while "Supali" is female.

Among the above mentioned tribes when a Shaman (Bhagat) interprets the cause of illness to intervention of ancestral spirits the patients parents, spouses or guardians go to the "Sonar" to order a motif of Vir or Supali. Once this is done the Shaman offers a chicken and/or coconut to the spirit. During the entire phase or span of illness, the concerned patients body is viewed as a symbol of ancestral spirit(s), by the tribe.

C] Body As a Natural Symbol

Studies by Tribhuwan Robin (1998 : 178) and Jain N.S. and Tribhuwan Robin (1996) reveal that the Thakars of Western Maharashtra and Korkus of Amravati associated their bodies to that of a tree. A tree has branches, so does the human body has skeletal system. A tree has bark and we have flesh. A tree has water, air and earth elements, so does the human body. A tree has fruits, human beings have children. The context of associating body to that of a tree varies from one illness episode to another, and from one ritual context to another.

Jain N.S. and Tribhuwan Robin (1996) in their book captioned, "Mirage of Health and Development," made a reference of how "Korku" respondents, who lost their children due to malnutrition and allied diseases, associated a woman's body to that of a tree. They said, "har ped ko phal ate hai, kuch girte (die) hai, to kuch jite (live) hai". Meaning, every tree (woman) gets fruits (children), some (die) fall off, while some live.

In-depth interviews with elderly members and medical practitioners of the tribe studied revealed that the knowledge of both tribal women and men regarding human body is based on their close observation and study of animal and plant life in and around forest. Their ideas about anatomy and physiology of human body are derived from what they knew about animals they kill for food.

Chaphekar L.N. (1961 : 83) highlight the perception of Thakurs regarding bodily organs goes as follows: According to the Thakurs the body of the beast has following main organs namely :-

- Kalij - Liver
- Phuphus- Lungs
- Dil - heart

- Pitta - bile
- Aatadi - Intestine
- Potala - Stomach
- Pitta - Spleen
- Yiv - Neck
- Mutlani - Urinary bladder
- Satputi - Deudonum

Tribhuwan Robin (1998) has stated that albinos and congenitally deformed children among the Thakars and even Katkaris of Raigad district are killed by the Midwives by two methods namely (1) suffocation – i.e. by putting a basket smeared with cowdung on the new born deformed or albino child and let suffocate to die. These tribals believe that an albino is a child of a evil spirit called “Munja” and a deformed child is an offspring of a blue-black evil spirit who is deformed too called Khais.

The Thakars believe that when spinster or bachelor dies she or he does not go to heaven. Their souls become evil spirits and grow on earth, because they have not had family, sex etc. These frustrated spirits have sex with normal women and produce albinos. Hence what belongs to the evil world must go back to evil world and hence they kill the child by suffocation method or (ii) by choking the throat of the new born. Tribhuwan Robin (1998)

Poly dactyly – a child with more than ten fingers is considered to be a son of a Khais. His body is not normal. Hence, it is made to perish naturally. Similarly cleft pallat is also linked with sexual intervention of Khais. The logic is that a good body form is linked with cosmos. A human being having ten fingers is normal. Eleven fingers or more are considered inauspicious and hence destruction/death. What is not natural, is unnatural, hence goes to unnatural world.

D] Ethno anatomy -

In Medical Anthropology the term ethno anatomy refers to the perception of a community regarding the structure of human body. Sure enough all the six tribes studied give importance to the skeletal system. They refer is to as the foundation of the body. Their classification regarding the bones of the body vary from one tribe to another. Thakurs for that matter, refer ribs to a cage (pinjara) that secures atma (soul) or life. They say that when a cage (pinjara) opens up, the soul (atma) is released from the body. When the atma which consists of fire, air, water, earth etc. leaves the

body. The body becomes clay. Atma is hence the oxygen of man's survival. Human body minus atma and mun (brain) is a lump of clay. Even the tribe studied had beliefs regarding the structure of the human body.

E] Ethnophysiology

Anthropologists consider the subject of ethnophysiology, as a sub discipline of Medical Anthropology, that studies people's perception regarding the functioning of various systems in the body.

The Katkaris and Thakars of Karjat block, Raigad district believe that there are two worms situated in the skull of a human being. They are located just above the fronto-nasal suture. When a man or woman drinks alcohol, hot air is produced in the stomach. These two worms begin to go round and round in the skull, hence a drunkard loses his balance.

Tribhuvan Robin (1998) further points out that the Thakars believe that these worms produce semen for males and eggs for females. During sexual intercourse the semen and eggs run down touching the soul of the partners and meet in the womb of a woman. Well, that is how the Thakars believe about the physiology of mating.

Blood letting is a therapy among the Bhils. When a person is suffering from Migrane head ache, the Bhils of Mundaivad in Nandurbar take piece of glass and cut the veins slightly of the painful forehead and let the blood out. They believe that spoilt blood creates pain and hence it should be let out.

Similarly colostrum milk is not given to the new born among the tribes studied, especially among the illiterate women. They believe that during nine months and nine days of pregnancy a woman does not menstruate. They believe that this "spoilt blood" - "Kharab Rakat / Raghat", mixes up with breast milk and thickens it. When the child drinks it he/she suffers from diarrhea.

The logic is food produces blood. Blood gets converted into milk. Spoilt blood (menstrual blood) which does not come out of a woman's body for nine months produces "Naska Dudh" (spoilt milk) and hence women remove colostrum milk for first one or two days. The child is given honey or jagary water.

Furthermore, the Warlis, Koknas, Katkaris, Kolams, Korkus and Bhils believe that when a lactating or new mother eats extreme cold foods, her blood becomes cold, when her blood becomes cold, the breast milk produced from the blood also becomes cold and the new born that drinks the milk gets cough and cold. Same belief exists regarding consumption of chilly hot food by the new mother. The hot taste is transferred from blood to breast milk and into the child's stomach causing diarrhea or dysentery. These beliefs

regarding the influence of hot and cold diet on human physiology are in every community.

F] Beliefs and Practices Regarding Delayed Deliveries

In his book captioned, "The Korkus of the Vindhya Hills", Fuchs Stephen (1988 : 223) stated that the Korku women usually bear their children without great difficulty and pain. The woman in labour is made to sit or lie on the floor. The Midwife presses and massages the woman's body from the hips onwards.

In cases of difficult and protracted birth refuge is taken to magic and superstition. It is believed, for instance, that a birth can effectively be assisted by untwining a twisted thread before the eyes of a woman in labour. This obviously is imitative magic. Some times she is given water to drink in which either her husband's left leg, a gun-bared, a pistle or a thunder bolt have been bathed.

It is believed that each of the articles has the quality of direct and powerful expulsion; this quality will be transferred to the woman and will enable her to propel the child from her womb.

If these practices do not help, a magician is called in. He takes a brass vessel (lota) and pours into it water just fetched from the well and of which no one else has taken a sip. He stirs it up with a finger. The vessel is then handed to the women in labour and she drinks.

Tribhuwan Robin (1998) reported that among the Thakars and Katkaris of Karjat, a woman in labour whose delivery is delayed is attended to by a Traditional birth attendant. The TBA puts a root of *calotropis gigantea* (Rui) under the neck of the woman in labour so as to accelerate the process of delivery. Each tribe has beliefs and practices regarding delayed deliveries. Given above are only two examples.

Save K.J. (1945) states that the Warlis cut open the womb of a dead pregnant woman, so as to bury the mother and the foetus separately. Tribhuwan Robin and Finkenauer Maike (2003) confirmed this fact when they carried out a study on the Warlis captioned, "Threads Together – A comparative study of Tribal and prehistoric paintings. The logic behind burying the mother and child separately is that their souls should migrate to heaven separately and not together as they are two different individuals.

G] The Impure Menstrual Blood

Among all the six tribes studied women and girls who menstruate are made to sit in a separate room or outside the house for a period of 3 to 5 days. They do not cook nor fetch water nor participate in any auspicious rituals. Tribhuwan Robin (1998) states that the Thakar women who menstruate are temporarily dislocated out of the social order. They

function normally only when they ritually bathe in a river, offer an incense stick and get back to normal life. The Thakars believe that a man gets leprosy if he has sexual intercourse with a menstruating woman.

It was observed among all the six tribes studied that the midwives press the stomach of a woman who delivers so as to let blood go out of her vagina. This is done to ensure that the menstrual blood which is in her body for 9 months of pregnancy, is let out and that she is pure. The fault therefore lies with the menstrual blood that dislocates tribal women out of their social system. Tribhuvan Robin (2004) in his study entitled Health of Primitive Tribes revealed that among the Madias of Bhamragad a menstruating girl or a woman is made to live in a hut on the outskirts of the village for 3 to 5 days. This hut is called "Kurmi". The family members give her food till she completes her menstrual cycle.

Stephen Fuchs (1986 : 227) while explaining the purification ceremony of Korku women after delivery stated that, between the sixth and the twelfth day after the day after the delivery the new mother and the midwife perform the purification ceremony. They together go to the river, or any other washing and bathing place for the Korku women of the village, and take their bath. They wash all the clothes worn by them since delivery, including the clothes of the new born. They wear new clothes. This ceremony usually concludes the period of pollution for the mother, and she is free of any restrictions.

H] Effect of Solar and Lunar Eclipses on the foetus.

Pregnant women from all the six tribes refrain from looking at solar and lunar eclipses because they believe that the child to be born will be deformed. These women refrain from eating food, drinking water from the well, cutting vegetables, even sleeping. They believe that the light of the sun is covered by a cosmic beast is impure and this impurity affects food, water etc. Among the Thakars a pregnant woman refrains from cutting vegetables, because they believe that the child to be born may have cleft palate or have cut on the body.

I] Elements That Constitute Body

In-depth interviews with the women, men and medical practitioners of all the six tribes studied, revealed that the human body constitutes of water, air, fire/heat and light. These elements contribute in functioning of a living body.

5.3 Disease Causation Concepts

Tribal women who were informally interviewed expressed their perceptions regarding the origin and cause of the diseases given below.

Table No. 5.1

Disease Etiology : Cross cultural Examples

Sr. No.	Disease	Tribe	Causation concepts
1	Chicken pox	Katkaris Kokanas Bhils Warlis Korkus Kolams	<ul style="list-style-type: none"> • Visitation of goddesses (devi) and / or female Planetary spirits called "baya"
2	Cough & cold	Katkaris Kokanas Bhils Warlis Korkus Kolams	<ul style="list-style-type: none"> • Influence of cold water / food / air
3.	Leprosy	Katkaris Warlis Thakars Kokanas Korkus Kolam	<ul style="list-style-type: none"> • Sexual intercourse with a menstruating women • Food consumed prepared by a menstruating women • Wrath of gods/goddesses
4	White discharge	Katkaris	<ul style="list-style-type: none"> • Sorcery/Witchcraft
5	Scabies	Katkaris Warlis Kokana	<ul style="list-style-type: none"> • Blood turns sweet • Fault with blood
6	Goiter	Bhils	<ul style="list-style-type: none"> •
7	Diarrhea	Bhils Kokna Korku Warlis Katkaris Kolam	<ul style="list-style-type: none"> • Consumption of chilly hot and or stale food <li style="text-align: center;">or • Drinking impure water, especially from stagnant ponds
8	Dysentery	Bhils Kokna Korku Warlis Katkaris Kolam	<ul style="list-style-type: none"> • Consumption of chilly hot and or stale food <li style="text-align: center;">or • Drinking impure water, especially from stagnant ponds
9	Fever	Bhils Kokna Korku Warlis Katkaris Kolam	<ul style="list-style-type: none"> • Exposure of body to extreme cold or due to deep wounds
10	T.B.	Katkaris Warlis	<ul style="list-style-type: none"> • Blood in the body becomes less • Witchcraft / sorcery

Sr. No.	Disease	Tribe	Causation concepts
		Kokanas	
11	Sterility	All the six tribes	<ul style="list-style-type: none"> • Witchcraft / sorcery Or • Sins in past birth
12	Epilepsy	Katkaris Warlis Kokanas	<ul style="list-style-type: none"> • Reduction of air in one part of the body of man.

It is recommended the research scholars from the fields of Medical Anthropology or Sociology or Health Sciences or even Medical Sciences should take studies on exploring tribal women's perceptions about various diseases and gynecological problems faced by them. Such a kind of documentation will help the policy makers to evolve appropriate health and nutrition education and case strategies.

5.4 Properties of Diet and Medicine : Perceptions

Medical scientists often analyze the inherent properties of medicine and diet to explore the alkaloids, minerals or chemicals that have healing properties. For example *Calotropis gigantea* (Rui) a milk weed, which is used by the Katkaris and Thakars of Karjat for abortion, has an alkaloid called "calotropin" which has the properties of softening tissues. Well, that's how bio-chemists analyze the properties of "Rui". Tribals have their own rationale of analyzing the inherent qualities and properties of medicinal plants, minerals, medicated oils, bodily parts of animals and even diet.

Table 5.2 illustrates perception of tribal women regarding inherent properties of medicinal plants.

Table No. 5.2

Properties of Medicinal Plants : Perceptions

Sr. No	Medicinal Plant	Disease	Properties
1	<i>Calotropis gigantea</i>	Abortion	<ul style="list-style-type: none"> • Latex of the milk weed is hot and has the quality of softening tissues • Katkari and Thakur women mix half a tea spoon of milk (Latex) with coconut water and drink it in the night to abort a two months old foetus. • Sometimes a stem of the weed is tied to a thread, so that the thread suspends. The soft stem with

Sr. No	Medicinal Plant	Disease	Properties
			latex is directly inserted in the uterus.
2	Carica papaya	Abortion	<ul style="list-style-type: none"> Raw papaya is eaten to abort a month old foetus. Women believe it is hot and has the quality to rupture tissues.
3	Dioscorea indica	Abortion	<ul style="list-style-type: none"> Raw corm is eaten to abort a month old foetus. Women believe it is hot and has the quality to rupture tissues.
4	Azadrachta indica (Neem)	Scabies	<ul style="list-style-type: none"> Leaves of Neem tree which are bitter are applied on the body of a person suffering from scabies. They believe the bitterness kills unseen worms and germs (kidas).
5	Vitex negundo (Nirgudi)	Arthritis	<ul style="list-style-type: none"> Medicated oil prepared from the leaves is used to massage joint pains. The oil has a quality of heat in it, they say and helps to reduce pain.
6	Holerrhena antidysentrics	Diarrhea or dysentery	<ul style="list-style-type: none"> Powder prepared from the stem of the shrub is taken twice a day with water as a remedy for diarrhea or dysentery. Women believe that the powder of the bark has cooling effect and helps to make the foetus solid.
7.	Aloevera indica	Burns	<ul style="list-style-type: none"> The latex of the juicy leaf is believed to have cooling effect as well as the property of healing the skin.
8	Curcuma domestica (turmeric)	Cuts	<ul style="list-style-type: none"> Turmeric powder is believed to have the property of stopping blood flow and healing the cut.

Well, given above are few examples of the women's perceptions regarding the properties of medicinal plants. Similarly they classify cereals, pulses, vegetables, fish, meat and fruits into hot, cold and aggravating qualities. For example, a patient suffering from scabies refrains from eating brinjal, potatoes, dry fish etc. as it is believed these foods are hot. Similarly,

rice has cooling qualities and hence a patient suffering from diarrhea/dysentery is given rice porridge.

Likewise hard food, which is believed to be tough for digestion is avoided during diarrhea or dysentery. Thus, meat, fish, dry fish, dioscorea, potatoes are believed to be hard for digestion. It is suggested that detailed research needs to be done in this area.

5.5 Reactions to Primary Health Centre program

An attempt was made by the researchers to document attitudes and reactions of tribal women and men about some health programs implemented by the Primary Health Centres.

A] Spacing and contraceptives

• Copper T

The copper T program perceptions of respondents were analyzed as follows :-

- i. Insertion of copper T leads to tearing of uterus.
- ii. Causes pain in lower abdomen and back of women
- iii. It gives rise to internal bleeding
- iv. Its insertion gives rise to white discharge.
- v. It decreases breast milk.

• Oral Pills

The abdominal portion of a woman becomes fat, when oral pills are taken.

• Condoms

Use of condoms creates a barrier in getting sexual satisfaction.

• Tubectomy

- Women who undergo tubectomy complaint of back ache
- Weakness
- Internal bleeding
- Menstrual problems

It was also observed that tribal women, who go for tubectomy, to get the money they get as incentives, after having 3 to 5 and more children. Besides, the incentives the health workers spent money on their travel and food. There are few educated tribal women, who go for tubectomy to achieve small family norms.

B] Matrutva Anudan

A study conducted by Tribal Research and Training Institute, Pune in 2002, revealed that 18.86 % of women did not know the purpose of the scheme & 88.66 % spent the money on purchasing clothes, ornaments.

Most of them throw the medicine they receive alongwith money. Majority did not know how much amount they get under the scheme.

C] Iron Tablets during pregnancy

Iron tablets they receive during pregnancy are not consumed by most of the women. They believe that :

- i. Iron tablets increases the weight of the foetus, thereby making it difficult for natural delivery.
- ii. Some felt these tablets contain heat which leads to abortion of the foetus.

D] Immunization

Immunization program has received a great response from tribal women. It was observed that women come forward not only to get immunized during pregnancy, but also see to it that their children get the necessary boosters and doses.

E] Soyabean flour (Sukhdi)

In every I.C.D.C. unit pregnant women are given "Sukhdi"- flour of soyabean mixed with sugar or jagery. It was observed that most women did not consume it as the taste of the same became a barrier. However, few educated women do consume it.

F] Institutional Deliveries

Maximum deliveries are conducted at home as certain rituals have to be performed at birth as well as five days after the birth of the child. Detailed explanation of this phenomena is given in Chapter one of this book.

Tribewise perceptions and attitudes of women needs to be documented for every health and nutrition program implemented by the Government of Maharashtra. This valuable data will be useful in planning, implementing and monitoring appropriate policies of health and nutrition education programs for tribal women.

* * *

Chapter Six

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Summary

Since the last two decades, there has been a rapid change in India in terms of technology, the growth of cities, modernity and so on. Information and Technology companies are flooding in mega cities providing job opportunities to youngsters. Construction companies too are doing well to create concrete jungle in cities. This is attracting the rural inhabitants to the cities. On the other hand, the educated, economically and politically powerful groups are adapting to lifestyles of globalization, while those living in the forests, valleys on mountains and hills are still in their own world of ignorance, illiteracy, isolation and economic backwardness.

We mean, modernization urbanization, globalization are concepts and dreams for the tribals. Despite of vast health care service net work, most tribals as citizens of this country can't avail of good nutrition, health care and health educational facilities.

Keeping in view this background, we decided to take up this study on one of the most neglected areas of tribal life, namely Health care issues of tribal women. An attempt was made to analyze the research problem from both emic (insiders) and etic (outsiders) perspectives, keeping view the following objectives.

◆ Objectives of the study

- To understand the perception of health and nutrition of tribal women from an insider's perspective.
- To explore the health, nutritional and hygienic problems faced by them.
- To study the health seeking behaviour among tribal women.
- To unveil the human medical resources among tribal women.
- To suggest recommendations to frame culturally and ecologically appropriate policies for health of tribal women.

♦ **Research Methodology**

Locale of the study

The present study was conducted in five districts, six tahsils and seven villages, in the State of Maharashtra, India. Table 6.1 presents district, tahsil and village wise number of interview Schedules administered.

Table No. 6.1

Districtwise number of Interview Schedules Administered

Sr No	District	Block	Village	Hamlet	No. of schedules
I	Nandurbar	1. Navapur	1. Nimboni	1. Bhilvasti	13
		2. Nandurbar	2. Dekhavad	2. Nalaphali	9
II	Raigad	3. Pen	3. Savarsai	3. Katkaripada	24
III	Thane	4. Jawhar	4. Wavar	4. Wavar	14
		5. Jawhar	5. Vangani	5. Shindepada	5
				6. Patilpada	2
				7. Savaricha Gharta	5
IV	Amravati	6. Achalpur	6. Burudghat	8. Korkupada	32
V	Yavatmal	7. Kelapur	7. Pahapal	9. Beghar	23
	Districts 5	Blocks 6	Villages 7	Hamlets 9	127

Target Population

As evident from table 6.2, the study covered all the tribes from sensitive districts of Tribal Sub Plan namely Nandurbar, Amravati, Thane, Yavatmal, Raigad etc. Table 6.2 presents tribewise number interview schedules administered.

Table No. 6.2

Tribewise number of schedules administered

Sr.No.	Tribe	District	No. of Schedules
1.	Bhil	Nandurbar	22
2.	Katkari	Raigad	24
3.	Warli	Thane	22
4.	Kokna	Thane	4
5.	Korku	Amravati	32
6.	Kolam	Yavatmal	23
	Tribes - 6	Districts - 5	127

Method of Data Collection

Primary Data

Both Primary and Secondary data were gathered by the researchers. Primary data was gathered by designing an interview Schedule for tribal women between the age range 15 to 49 years. The researchers interviewed 127 tribal women using the Schedule (see Appendix I).

Secondary Data

An extensive review of literature was carried out by searching and referring articles, monographs, encyclopaedias and literature on health of tribal women. Reports of non-Government and Government organizations were studied. Facts and figures from Census of India, District Gazetteers, Bench Mark Survey by Tribal Research and Training Institute, Pune, Tribal Sub Plan book published by Tribal Development Department, Government of Maharashtra etc. were referred.

Method of Data Collection

Primary data was collected using interview schedules was entered in the computer using Excel Software. Simple tables were prepared and interpreted, so as to present quantitative data. Qualitative data was analyzed manually. Qualitative data was gathered by holding informal interviews with traditional medical practitioners such as Shamans, Herbalists, Bone setters and Traditional Birth Attendants, Elderly women,

pregnant and lactating women, trustees and staff of N.G.Os. working on tribal health etc. Besides conducting focussed Group Interviews of the above mentioned key informants, use of observation method and photography was done to support the data collected using interview schedule.

Sampling Procedures.

The researchers selected 10% of the total number of households in every hamlet and village selected. This was done to avoid bias and select representative sample. A list of heads of the households was made village and hamlet wise and every tenth head was selected as a respondent. Thus, simple random sampling procedures were used to select the sample.

Chapter Scheme

The data collected, analyzed and interpreted has been presented in six chapters. These are as follows :-

I] Chapter One

An overview of Tribal Health & Infrastructure.

II] Chapter Two

Research Methodology

III] Chapter Three

Health Issues of Tribal Women : Findings

IV] Chapter Four

Medical Resources Among Tribal Women.

V] Chapter Five

Maternal Health Beliefs and Practices : A cross cultural view

VI] Chapter Six

Summary, conclusions and Recommendations

◆ Significance of the study

Studies on health of tribal women in Maharashtra are very few. These are published in the form of papers and articles. However, there is no detailed book on the subject. This book will not only develop new theoretical insights in Medical Anthropology and

Sociology, Health Sciences, Social Sciences etc., but will also help in formulating health policies for tribal women.

6.2 Conclusions

Qualitative and Quantitative data gathered by designing interview schedules and guides clubbed with participant observation contributed in developing certain conclusions. These conclusions on health care of tribal women are as follows :-

1] Cultural Dimension of Tribal Health (Emic – insider's view).

Health is an aspect of culture, hence beliefs of tribal women regarding disease classification, etiology, body image, body symbolism, ritual healing, ill-health and normal health, impact of food and medicine on body physiology etc. are inter-twinned within the frame work of every tribal ethno medical system.

2] Role of cultural symbols

Cultural symbols within a given healing ritual context certainly have impact on the psyche of the tribal patient.

3] The isolation factor

Geographical, social, economic and political isolation of the tribal women from the main stream, clubbed with low level literacy and high degree of ignorance and shyness, have been hurdles or barriers in accepting modern health, nutrition and education interventions.

4] Gap between the knowledge of paramedical workers and tribal women.

The gap between what the disease is "and" what tribal women believe it to be creates problems in health care and health education. There is a vast gap between paramedical worker's knowledge of what is disease, body image, etiology, therapy etc. and the tribal women's knowledge of the same.

5] Involvement of Traditional Medical practitioners in Primary Health Care.

On the lines of T.B.As. involvement of other traditional practitioners like the Shamans, Bone-setters, herbalists, and specialized herbalists, Assistant Midwives can accelerate the process of bridging gap in the knowledge of paramedical workers and tribal women.

6] Recruitment of Tribal Girls and women

Recruitment of educated tribal girls as Anganwadi workers, A.N.M.'s, school teachers, Health Assistants, Pada Workers, Peons of Gram Panchayat, etc. will speeden up the process of culturally appropriate health care and health education.

7] Health Education Units

Greater the inputs of health and nutrition education in tribal dialects at the sub-centres level, greater the awareness among women.

8] Educational & Economic status

Higher the educational and economic status of tribal women, higher the level of health consciousness.

9] Provision of clean and safe drinking water

Provision of clean and safe drinking water in tribal hamlets (i.e. padas, wadis, phalis and vastis) can reduce the incidence of water borne diseases.

10] Financial Incentives to Traditional Medical Practitioners

Incentives in kind and cash to traditional medical practitioners under supervision can contribute in bridging the gap between Primary Health Centre and the tribal women.

11] Personal Hygiene and sanitation

Introduction of personal hygiene and sanitation through camps in Ashram and Zilla Parishad schools can contribute in creating awareness of health and hygiene among tribal girls and boys.

12] Folk Media and Health education

Use of folk media such as tribal songs, dramas, narrations, and orature in tribal dialect etc. can be more effective than the I.E.C. material / posters which is, not understood by the women.

13] Successful programs

Immunization and I.C.D.S. programs were found to be successful due to greater degree of awareness, constant interaction of Anganwadi worker and the A.N.M.s with tribal at hamlet level and more importantly, because they live in the hamlets and villages.

14] Strengthening Anganwadis / Sub-Centres

Equipping Anganwadis and sub-centres by providing medicine, First Aid Boxes, quality nutrition supplements, qualified female staff etc. can strengthen primary Health care not, only for tribal women, but children and men as well.

15] Kitchen Garden & Medicinal Plant Cultivation Scheme

Promotion of such schemes through I.T.D.Ps. and D.R.D.A. can be beneficial to tribal families both from the view point of additional nutrition, local health traditions and income as well.

6.3 Recommendations

- 1} Tribal Research and Training Institutes of various States should take up research studies on health issues of tribal women, by taking a larger and cross cultural sample.
- 2} There is need for documenting tribewise the natural and human medical resources across the country.
- 3} Tribal women medical practitioners be involved in Primary Health Care programmes at the sub-centre and Anganwadi level. Incentives in cash and kind could promote their participation.
- 4} There is an urgent need to promote reforestation, Kitchen Garden Schemes and cultivation of medicinal plants programs through Zilla Parishad, Forest Department and Ashram Schools.
- 5} First Aid boxes equipped with medicines should be in every Anganwadi, Zilla Parishad and Ashram School.
- 6} Every hamlet should have safe and clean drinking water facilities so as to prevent water borne diseases.
- 7} There is a need to recruit a health education officer for every Primary Health Centre preferably a female having a Masters degree in Health Sciences, or Medical Social Work, Medical Anthropology or Sociology. In fact, a health education unit needs to be established in every Primary Health Centre equipped with I.E.C. material and equipments.
- 8} Directories of Traditional Medical Practitioners either tribe or I.T.D.P. wise should be published. This will help both Government and non-Government organizations to plan, implement, monitor and follow-up programs to mobilize medical resources in tribal cultures.

- 9) The Tribal Research and Training Institute, Pune, has produced a film in English and Marathi, on how to prevent malnutrition. The Institute is working on translating the documentary in 12 tribal dialects. These documentaries in DVD/CD form will be distributed to Primary Health Centres and N.G.Os. for screening in tribal hamlets. Such ventures could be duplicated by other Tribal Research and Training Institutes in the country.
- 10) The Tribal Research and Training Institute, Pune has also published two volumes captioned, "Living A Healthy Life : A case study of a Warli Girl. " The books have been authored by Dr. Nicola Pawar and Dr. Robin Tribhuwan, using Warli paintings as illustration to spread the message of health, hygiene and development among tribal women. Such efforts could be taken up by other Tribal Research and Training Institutes in the country.
- 11) A project to document the local health traditions specific to each tribe should be taken up.
- 12) The Department of Health should embark upon a Tribal Health Plan than should be developed in consultation with the Tribal Department and NGOs engaged in the health and hygiene aspect of Tribals.

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REFERENCES

1. Chaphekar L.N., 1961
The Thakurs of Sahyadri,
Oxford University Press,
New Delhi.
2. Fuchs Stephen, 1986
The Korkus of the Vindhya Hills,
Inter-India publications,
New Delhi.
3. Naik T.B.
The Bhils : A study
Bhartiya Adimjati Sevak Sangh,
Kings way, Delhi.
4. Save K.J. 1945,
The Warlis
Padma Publications,
Bombay.
5. Joshi O.P. 1992
Marks and Meaning : Anthropology of symbols, BSA
publishers,
Jaipur.
6. Jain N.S. & Tribhuwan Robin, 1995
An Overview of Tribal Research studies,
Tribal Research & Training Institute, Pune.
7. Bhanu B.V. and Kulkarni L.V. 1995
Dropouts in Tribal Context in Jain & Tribhuwan (eds),
An Overview of Tribal Research Studies, Tribal Research
And Training Institute, Pune.
8. Jain N.S. & Tribhuwan Robin, 1996
Mirage of Health and Development,
Vidya Nidhi Publications,
Pune.
9. Tribhuwan Robin, 1998,
Medical World of Tribals,
Discovery publishing House,
New Delhi

10. A report by, Tribal Research and Training Institute, 2002, Dying children, Tribal Research & Training Institute, Pune.
11. A report by, Tribal Research and Training Institute, 2002, The Truth About Malnutrition Deaths, Tribal Research & Training Institute, Pune.
12. A report by, Tribal Research and Training Institute, 2002, Malnutrition Related Deaths in Nandurbar District. Tribal Research & Training Institute, Pune.
13. A report by, Tribal Research and Training Institute, 2002, Financial Incentives to pregnant Women, Tribal Research and Training Institute, Pune.
14. A report by, Tribal Research and Training Institute, 2002, Resettlement of Tribal Families Displaced by Irrigation Projects, Tribal Research and Training Institute, Pune.
15. Pawar Nicola and Tribhuwan Robin, 2007
Living A Healthy Life : A case of a Warli Girl, (Vol. I), Tribal Research & Training Institute, Pune.
16. Pawar Nicola and Tribhuwan Robin, 2007
Living A Healthy Life : A case of a Warli Girl, (Vol. II), Tribal Research & Training Institute, Pune.
17. Tribhuwan Robin and Kelkar Aarti, 1995
Health of Tribal Women : Research priorities, in An Overview of Tribal Research Studies, Tribal Research & Training Institute, Pune.
18. Tribhuwan Robin & Gambhir R.D., 1995
Ethnomedical pathway : A conceptual Model, in Jain & Tribhuwan (eds), Tribal Research & Training Institute, Pune.
19. William Caudil, 1955,
Applied Anthropology in Medicine, in Kroeber A.R. (Ed)
Anthropology Today, The Chicago University Press, Chicago.
20. Tribal Sub-Plan 2007-2008
Department of Tribal Development,
Government of Maharashtra, Mantralaya, Mumbai.
21. Tribhuwan Robin, 2006
Functional Review of Tribal Development Department,
YASHADA.

22. Tribhuwan Robin, 2003
Tribal & Bio-diversity, Ashwatha, Vol.
YASHADA, Pune.
23. Tribhuwan Robin & Khandagle Sanjay,
Tradi-mod First Aid kits,
Ashwatha, Vol. 2, Issue 2, (April-June),
YASHADA, Pune
24. Reproductive and child Health Program – M I S package,
2007 State Family Welfare Bureau, Pune 411001.
25. Tribhuwan Robin & Peters Preeti, 1992
Medico-ethnobiology of Katkaris and Thakurs in Tribal
Research Bulletin, Vol. XIV, No. 1, March Issue,
Tribal Research and Training Institute, Pune.
26. Tribhuwan Robin & others, 1993,
Maternal & Child Health Care Beliefs & practices of
Mavchis, in *Qualitative Research Methods News Letter*,
Department of Health Service Studies, T.I.S.S., Mumbai.
27. Tribhuwan Robin, 1993, Maternal and Child Health Care
Beliefs & practices of the Thakurs in Education and Social
change, April-June Issue, I.I.E. Pune.
28. Harner Michael, 1973,
Hallucinogens & Shamanism,
Oxford University Press,
New York.
29. Bagade & others, 1995
Overview of Tribal Health,
In Jain N.S. & Tribhuwan Robin (eds), *An overview of Tribal
Research Studies*, Tribal Research & Training Institute,
Pune.
30. Kate S.L. & others, 1995
Impact of Genetic Disorders on the health problems
Amongst Tribal populations, in Jain N.S. & Tribhuwan
(eds), *Tribal Research & Training Institute*, Pune.
31. Bench Mark Survey Reports, 2001,
Tribal Research & Training Institute, Pune.
32. Dr Abhay Bang Committee Report, 2005 Child Death
Evaluation Report (Alternative Strategies on child deaths &
Malnutrition), Government of Maharashtra, Department of
Health & Family Welfare, Mumbai.

33. Tribhuwan Robin & Finkenaver Maike, 2003 Threads Together : A comparative study of Prehistoric & Tribal paintings, DPH, New Delhi.
34. Narbhavar Ravindra & Tribhuwan Robin, 2003, Grain Bank Scheme, T.R.I.D., Pune.
35. Tribhuwan Robin, 2002, Strengthening Non-formal Education for Tribal Communities, Anubhav, in Ashwatha, Vol. 2, Issue 4, (October-December), YASHADA, Pune.
36. Tribhuwan Robin, 2004 Health of Primitive Tribes Discovery Publishing House, New Delhi.
37. Tribhuwan Robin, 2005 Tribal Housing Issues Discovery Publishing House, New Delhi.
38. Tribhuwan Robin (eds), 2000 studies in Tribal, Rural & Urban Development, D.P.H., New Delhi.
39. Tomar Y.P.S. & Tribhuwan Robin, 2006 Development of Primitive Tribes in Maharashtra, Tribal Research and Training Institute, Pune.
40. Tomar Y.P.S. and Tribhuwann Robin, 2006 The Mavchis of Nandurbar, Tribal Research and Training Institute, Pune.
41. Tribhuwan Robin, Dr. Shendarkar and Nanal, 2001. Naturopathy Mode Simple, Nanal Foundation, Pune.
42. Palekar R.D., Tribhuwan Robin and Nanal, 2001 An Introduction to Tribal Medicine, Nanal Foundation, Pune.
43. Nanal, Tribhuwan & Patil, B, 2001, Home Remedies, Nanal Foundation, Pune.
44. Tribhuwan Robin (eds) Fairs & Festivals of Indian Tribes, D.P.H., New Delhi.
45. Centre for Social Science, Research on Leprosy, 1987, Gandhi Memorial Leprosy Foundation, Wardha.
46. Kurian J.C. & Tribhuwan Robin, 1990 Traditional Medical Practitioners of Sahyadri, in Eastern Anthropologist, Vol. 43, No 3, Ethnographic & Folk Culture Society, Lucknow.

47. Kate S.L., 2001
Health Problems of Tribal Population Groups From the State of Maharashtra, in Indian Journal of Medical Sciences, Vol. 55, No. 2, February 2001, pages 99-108.
48. Kate S.L. and Lingojar D.P., 2002
Epidemiology of Sickle Cell Disorder in the State of Maharashtra, in, Indian Journal of Human Genetics, Vol. 2 (3), pages 161-167, New Delhi.
49. Kate S.L., 2001
Sickle Cell Disease,
In Lokmat News Paper,
Dated, 16th December, 2001 Pune.
50. Tribhuwan Robin & Sherry Karen, 2004,
Health, Medicine and Nutrition of the Tribals, D.P.H., New Delhi.