ANNUAL REPORT - 2002

Regional Medical Research Centre for Tribals
(Indian Council of Medical Research)
Nagpur Road, Jabalpur - 482 003



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PREFACE

Dr. R. S. Tiwary, former Director of the centre retired on superannuation on 28th February 2002. After I took over as Officer–in–Charge, the Centre got shifted to the main building which was formally inaugurated by Dr. Padam Singh, Addl. Director General, ICMR on 28th May 2002.

In haemoglobinopathies, the centre screened the Scheduled Tribes and Scheduled Caste population of Chhindwara district. The prevalence of sickle cell trait has been found to be 17% in Korku tribe while in Basod (SC) it was 24%. Eighty seven percent Scheduled Tribe population have been found anaemic, but most of the cases (59%) are of mild type. In another study on morbidity profile of Sickle cell disease patients, 145 sickle cell patients have been registered till date. Study has yielded that a sickle cell disease patient has to bear a wage loss of Rs.24/- per month due to sickness, besides expenditure on treatment due to the disease being Rs.109/- per month.

Malaria is another thrust area of research of the centre. The centre has initiated an important study on placental malaria. Studies revealed that prevalence of placental malaria was very high (30%) in pregnant women who come for delivery in District Hospital Mandla with or without fever. Both Plasmodium vivax and P. falciparum were present in placental and umbilical cord blood smears. Although the studies are still in preliminary stage, some of the results obtained such as the prevalence of mixed infection of P. vivax and P. falciparum throw light on the complexity and magnitude of the problem. This information is important for developing strategies in treatment, prevention and control of the disease. Further, we have achieved the technical sophistication, skills and recognition through the Centre for Disease Control and Prevention (CDC), Atlanta, USA, which we longed for a decade ago. Our mission is to conduct field trial for malaria vaccine which is expected to be the major tool for intervention and prevention in the present scenario

of disease and vectors, as the two powerful tools namely DDT and Chloroquine on which malaria control relied are now no longer effective.

In an on going study on nutrition profile of Baigas, the data has revealed that 77% adults are chronic energy deficient (BMI 18.5%). The nutrient intake of calories, iron, carotene, riboflavin, fat and zinc have been found lower than RDA. In another ongoing study on Saharias it has been observed that 94% pre-school children are under-nourished. Fourteen percent adults have severe chronic energy deficiency. Eighty eight percent population is anaemic. Their food had been found deficient in Iron, Vit.A and Vit.C. A follow up study on fertility of Khairwars of Sidhi district has shown improvement in fertility level as compared to the findings of 1992-93 study carried out by the Centre.

The Voluntary Counseling and Testing Centre at RMRCT is actively participating in National AIDS Control Program. It is one of the three State Level Referral Laboratories of M.P. This year, the centre reported 64 HIV positives of the 2513 serum samples tested.

Further, during the year, scientists of the centre participated in National and International conferences and have undergone training at other reputed institutes. The centre collaborates with many other institutes of the country. Every effort has been made to collaborate with State Govt. Health Department. Many outbreaks were investigated on the request of Govt. of Madhya Pradesh and Chhattisgarh. It is worthwhile to record that all important events of the centre were attended by senior bureaucrats/technocrats of the State Health Department of Madhya Pradesh.

In the area of physical capacity building, there was reasonable progress too. The centre will soon have necessary infrastructure for molecular biology and biotechnology as in coming years molecular biology and biotechnology will have to play a leading role in answering many of the research questions.

The development of the centre during 2001-2002 was remarkable and Honorable Director General of Indian Council of Medical Research (ICMR) Prof.(Dr.)

N. K. Ganguly during his recent visit to the centre stated that the centre has all the potential of being considered as one of the “Centres of Excellence” in the country.

Finally, I am very grateful for the guidance, help and support received from the Director General of ICMR Prof. (Dr.) N.K. Ganguly, members of the Scientific Advisory Committee specially SAC Chairman Lt. Gen. D. Raghunath and Dr. Sarala Subbarao, Director, Malaria Research Centre, New Delhi. I am also grateful to ICMR Headquarter, New Delhi for rendering technical and financial support.

Last but not the least, I wish to express my sincere gratitude to all my colleagues and members and staff of RMRC and MRC for their continuous support that could make all round development possible.

Dr. Neeru Singh
Officer - in - Charge

STAFF POSITION AS ON 31-12-2002

Officer–in–Charge
Dr. Neeru Singh, M.Sc.,Ph.D.

SCIENTIFIC DIVISION

NAME	QUALIFICATION	DESIGNATION
Dr. G.D. Pandey	M. Sc., Ph. D., D.Lit.	Deputy Director
Dr. V.G.Rao	M.B.B.S., M.D.	Assistant Director
Dr. R.B. Gupta	M.Sc., Ph. D.	Assistant Director
Dr. Tapas Chakma	M.B.B.S.	Assistant Director
Smt.P.L. Pandey	M.Sc.	Senior Research Officer
Dr. Kalyan B.Saha	M.Sc., M.P.S., Ph. D.	Senior Research Officer
Dr. Anoop R. Anvikar	M.B.B.S., M.D.	Senior Research Officer
Dr. S.C. Dixit	M.B.B.S.	Research Officer
Sh. Gyan Chand	M.Sc.	Research Officer
Dr. Dasarathi Das	M.Sc., Ph. D.	Research Officer
Dr. C.K.Dolla	M.B.B.S.	Research Officer
Dr. Surendra Kumar	M.B.B.S.	Research Officer
Sh. Dinesh Kumar	M.Sc.	Research Officer
Dr. (Miss) K.Damayanti	M.Sc., Ph. D.	Research Officer
Dr. Rajiv Yadav	M.B.B.S., M.D.	Asstt. Research Officer
Sh. K.V.K. Rao	M.Com., B. Lib.	Asst.Lib. & Inf.Officer
Sh. V. Soan	M.Sc.	Research Assistant
Dr. Deep Chand Jain	M.Sc., Ph. D.	Research Assistant
Dr. Jyotirmoy Roy	M.Sc., Ph. D.	Research Assistant
Sh. P. Vinay Rao	M.Sc.	Research Assistant
Sh. Arvind Kavishwar	M.Sc.,P.G.D.C.A.	Research Assistant
Dr. Arvind Verma	M.Sc., Ph. D.	Research Assistant
Dr.Smt.Alpana Abbad	M.A., Ph. D.	Research Assistant
Dr. Bal Krishna Tiwari	M.A., Ph. D.	Research Assistant
Sh. Praval Shrivastava	M.A	Research Assistant
Sh. Ajay Kumar Goel	M.A. (Stat.)	Research Assistant
Sh. Samar Bahadur Singh	M.A.	Research Assistant
Sh. Mendi, P.S.S. Singh	M.Sc.	Research Assistant
Dr. M.K.Bhondeley	M.Sc., Ph. D.	Research Assistant
Smt.Ujwala Das	M.Sc.	Research Assistant
Sh. Vijay. S. Gadge	M.Sc.	Research Assistant
Sh. Mohan Lal Kori	M.A.	Research Assistant
Sh. Pradeep Kumar Meshram	M.Phil.	Research Assistant
Dr. Rakesh Chandra Mishra	M.A., Ph. D.	Senior A.C.P.
Sh. G.P.Shukla	B. Sc.	Tech. Assistant
Sh. Sachchidanand Singh	M.A	Library Information Asst.
Dr. N. K. Chowdhary	M.A., Ph. D.	Medical Social Worker
Sh. Prakash Srivastava	B. A.	Data Entry Operator,Gr.B
Sh. Subhash S. Kumbhare	B. Sc.,C.O.	Data Entry Operator
Sh. R.Raghunadh Babu	M. Sc., DCP	Data Entry Operator,Gr.B
Smt.Savinder Rao	B. Sc., DMLT	Lab. Technician
Sh. R. K. Minocha	Hr.Sec.	Lab. Technician
Sh. Chandan Karforma	B. Sc., DMLT	Lab. Technician

Sh. Subhash Godbole	M. Sc., DMLT	Lab. Technician
Sh. M. L. Patel	Hr.Sec., DMLT	Lab. Technician
Sh. Ashok Kumar Gupta	B. Sc., DMLT	Lab. Technician
Sh. Anil Gwal	B. Sc., DMLT	Lab. Technician
Sh. Laxman Singh Kaushal	B. Sc., DMLT	Lab. Technician
Smt.Canina Luke	B. Sc., DMLT	Lab. Technician
Sh. Lalit K. Sahare	Hr.Sec., DMLT	Lab. Technician
Sh. Sujit Kumar Das	B.Sc., DMLT	Lab. Technician
Sh. Mahendra Jaidev Ukey	Hr.Sec.	Lab. Technician
Smt.Reena Shome	B. Sc.	Lab. Recorder
Sh. C. P. Vishwakarma	B.A.	Field Assistant
Sh. Shiv Kumar Singh	Hr.Sec.	Field Assistant
Sh. D.C. Khatarkar	Hr.Sec.	Insect Collector
Sh. S.R. Mishra	Hr.Sec.	Insect Collector
Sh. B.S. Patel	Hr.Sec.	Insect Collector
Sh. M. P. Tiwari	M.A.	Insect Collector
Sh. D.K. Mishra	B.A.	Insect Collector
Sh. Ajesh Kumar Dubey	Hr.Sec.	Insect Collector
Sh. Rakesh Jaiswal	Hr.Sec.	Insect Collector
Sh. Ghanshyam Ahirwar	Hr.Sec.	Insect Collector
Sh. Rajju Lal Neelkar	Hr.Sec.	Lab. Assistant
Sh. Purshottam Patel	Hr.Sec.	Lab. Assistant
Sh. Ram Kumar Verma	Hr.Sec.	Wireman

ADMINISTRATIVE DIVISION

NAME	QUALIFICATION	DESIGNATION
Sh. C.A. Thomas	B.A., LLB,	Administrative Officer
Sh. B.K. Majumdar	B.Com.	Accounts Officer
Sh. Ravi Kant Gupta	B.A.	Section Officer
Sh. Gyan Chandra Jain	B.A.	Section Officer
Sh. Pramod Kumar Argal	M.A.	Assistant
Sh. P.K.Bhalerao	M.Com.	Assistant
Sh. Dwarka Prasad Lodhi	M.A. L.L.B.	Assistant
Sh. Rajendra Kumar Thakur	B. Sc.	Assistant
Sh. Sudesh Kumar Yadav	B.A.	Personal Assistant
Sh. Hakim Singh Thakur	M.A.	Jr. Hindi Translator
Sh. P.K.Shrivastava	B.A.	Upper Division Clerk
Mrs.Filomina Lakra	B.A.	Upper Division Clerk
Ku. Pushpa Kostha	Hr.Sec.	Upper Division Clerk
Sh. Bhagwani Prasad	Hr.Sec.	Upper Division Clerk
Sh. Raj Kumar Handa	Hr.Sec.	Upper Division Clerk
Sh. Sailesh Kumar Sahai	Hr.Sec.	Upper Division Clerk
Sh. Vincent Minj	B.A.	Upper Division Clerk
Sh. Natthi Lal Sharma	X	Upper Division Clerk
Sh. Satish Kumar Vinodia	B.Com.	Upper Division Clerk
Sh. Subash Ch. Muduli	M.A.,B.Lib.	Stenographer
Sh. Ram Naresh Dubey	Hr.Sec.	Lower Division Clerk
Sh. Baishakhu Lal	Hr.Sec.	Lower Division Clerk
Sh. Raghubir Prasad	Hr.Sec.	Hindi Typist

SUPPORTING STAFF

NAME	DESIGNATION
Sh.Tulsi Ram Kurmi	Driver
Sh. Ram Narayan	Driver
Sh. Ashok Kumar Saini	Driver
Sh. Paramjeet Singh	Driver
Sh. Ramesh Kumar Gond	Driver
Sh. Genda Lal	Driver
Sh. Ravindra Kumar Katrah	Driver
Sh. P.K.Namdeo	Motor Mech.
Sh. Pramod Garg	Daftari
Sh. Laxman Prasad	Daftari
Sh. Ganga Bahadur	Library Attendent
Sh. K. Venu Gopal	Store Attendent
Sh. Baidhraj Kachchi	Mali
Sh. Madan Singh Maravi	Peon
Sh. Suresh Kumar Pareha	Peon
Sh. Pritam Lal Gond	Peon
Sh. Dhan Singh Thakur	Lab.Attendant
Sh. Vijay Kumar Kachhi	Lab.Attendant
Sh. Jagdish Prasad Mishra	Lab.Attendant
Sh. Jagdish Singh	Lab.Attendant
Sh. Sheikh Saleem	Lab. Servant
Sh. Pramod Kumar Chaubey	Lab. Servant
Sh. Sukhlal Vishwakarma	Lab. Servant
Sh. Jagdish Prasad Thakur	Lab. Servant
Sh. Suresh Kumar Burman	Lab. Servant
Smt. N.G. Ambujam	Lab. Servant
Sh. Rajendra Prasad Gond	Lab. Servant
Sh. Suresh Jaiswal	Watchman-Cum-Cook
Sh. Umesh Prasad Gautam	Watchman-Cum-Cook
Sh. Anil Vinodia	Watchman-Cum-Cook
Sh. Rameshwar Prasad	Workshop Helper
Sh. Ramesh Ahirwar	Chowkidar
Sh. Doman Ram	Chowkidar
Sh. Malikhan Singh	Chowkidar
Sh. Santosh Kumar	Chowkidar
Sh. Ram Kumar Mehra	Chowkidar
Sh. Summat Singh	Chowkidar
Sh. Ajay Kumar Soni	Chowkidar
Sh. Santosh Kumar Kol	Chowkidar
Sh. Prem Singh Gond	Chowkidar
Sh. Bhagwan Singh	Chowkidar
Sh. Shesh Naraian	Sweeper
Sh. Arakh Chand Malik	Sweeper
Sh. Vishnoo Prasad	Sweeper
Sh. Sone Lal Dumar	Sweeper
Sh. Pappu Lal Dumar	Sweeper

Staff joined during the year 2002.

1. Dr. Kalyan Brata Saha, S.R.O. (Demography).
2. Dr. Anoop R. Anvikar, S.R.O. (Microbiology).
3. Dr. K. Damayanti, R.O. (Nutrition).

Staff retired during the year 2002.

1. Dr. R. S. Tiwary, (Director)
2. Dr. D. K. Mishra (A.D.)
3. Dr. S. C. Dixit (R.O.)
4. Mr. D. S. Kund (Driver)
5. Mr. Dan Bahadur Thapa (Watch Man)

RESEARCH PROJECTS OF THE CENTRE

Completed / Ongoing studies

1.1 HAEMOGLOBINOPATHIES AMONG THE SCHEDULED CASTES AND SCHEDULED TRIBES OF DISTRICT CHHINDWARA.

(Ongoing Study)

The study is being carried out in two major tribes (Korku and Gond) and major Scheduled Castes (Mahar/Mehra, Katiya and Basod) in district Chhindwara The objective of the study is to find out the prevalence of sickle haemoglobin, β-thalasaemia and G-6-PD deficiency in the tribal and Scheduled Caste populations.

Sickle haemoglobin is main form of haemoglobinopathies in Scheduled Tribe and Scheduled Caste populations. The prevalence of sickle haemoglobin is very high (up to 24%) in SC population. Among the tribes Korkus have high prevalence of HbS (16.7%) compared to Gonds (3.6%). The prevalence of β-thalasaemia trait varies from 2.2% (Basod) to 4.8% (Korku). The prevalence of G6-PD ranges from 1.3% (Katiya) to 4.3% (Basod).

Eighty seven percent Scheduled Tribes are anaemic (Table-1.1.1). Most of the anemia (59.1%) is of mild type. Only 1.8% are severely anaemic. Similar observations are for the Scheduled Castes. Anaemia is more common among the adult females and children. The MCV and MCH values are low with wide variations suggestive of widely prevalent nutritional (iron deficiency) anaemia.

Table-1.1.1: **PERCENT PREVALENCE OF ANAEMIA IN SCHEDULED TRIBES**

Population	Group	N	Grade of Anaemia			Total Anaemia
			Mild	Mod.	Severe	
Gond	Male	49	73.5	0.0	2.0	75.5
	Female	63	58.7	30.1	0.0	88.8
	Child	52	46.2	50.0	3.8	100.0
	Total	164	59.1	27.4	1.8	88.3
Korku	Male	42	57.1	7.1	4.8	69.0
	Female	52	63.5	28.8	1.9	94.2
	Child	73	65.7	24.6	0.0	90.3
	Total	167	62.9	21.5	1.8	86.2

Five sickle cell disease patients show moderate anaemia (Hb <8 g/dl) with moderately raised (6.8± 3.8%) foetal haemoglobin (Table-1.1.2).

Table-1.1.2 : HAEMATOLOGICAL PROFILE OF SICKLE CELL DISEASE PATIENTS

Group	N	Hb (g/dl)	MCV (fl)	MCH (pg)	MCHC (g/dl)	HbF (%)	Retic (%)
Katiya	4	8.4 ± 0.7	82.3 ±12.8	26.0 ± 4.4	31.5 ± 0.7	9.4 ± 0.6	6.8 ± 3.8
Korku	1 (11/M)	7.6	75.1	22.7	30.2	10.9	6.0

1.2 MORBIDITY PROFILE OF SICKLE CELL DISEASE IN CENTRAL INDIA (Ongoing Study)

The sickle cell disease patients who visit Genetic Laboratory of the Centre for diagnosis of the disorder are registered in the Sickle Cell Clinic. The patients are followed for clinical and haematological examination at every fourth month. The findings are recorded in the structured proforma. A total of 145 patients are registered of which one fourth are females. Three-fourth of the patients belongs to Scheduled Castes and OBCs. Seventy five percent patients are below 15 years of age and only 2 patients were aged above 40 years.

Among the main clinical findings fever, painful crisis of bone and joints of extremities are most common. Splenomegaly is very common in all the patients. Moderate level of spleen (3-9 cm) has been found in almost every age group (Fig. 1.2.1). However, massive spleen (>9 cm) has been more common among children below 15 years.

Children who have their first episode of sickle cell crisis up to 3rd year of age are more likely to have severe form of disease (56.6%) as compared to the patients who had their first episode of crisis after 6 years of age (33.9%) (Fig. 1.2.2). Forty nine percent patients have reported increase in painful crisis episodes during the onset of rainy and winter season.

The mean haemoglobin level in steady state was 7.8 gm/dl with a mean foetal haemoglobin of 12.7% (Table 1.2.1). The mean level of HbF has been found similar in both the sex. The severity of disease has not been found affected by level of HbF.

Table 1.2.1: HAEMATOLOGICAL PARAMETERS OF SCD PATIENTS

Sex	Hb (g/dl)	TRBC (10^{12}/l)	MCV (fl)	MCH (pg)	MCHC (g/dl)	HbF (%)
Male (n=105)	7.8 ± 2.3	3.0 ± 0.9	81.3 ± 11.8	26.8 ± 4.8	33.2 ± 3.3	12.73 ± 5.5
Female (n=33)	7.8 ± 2.5	2.8 ± 0.9	84.2 ± 13.0	28.6 ± 5.6	33.8 ± 3.8	13.1 ± 5.5

Fig. 1.2.1
Age and Spleen size of Patients

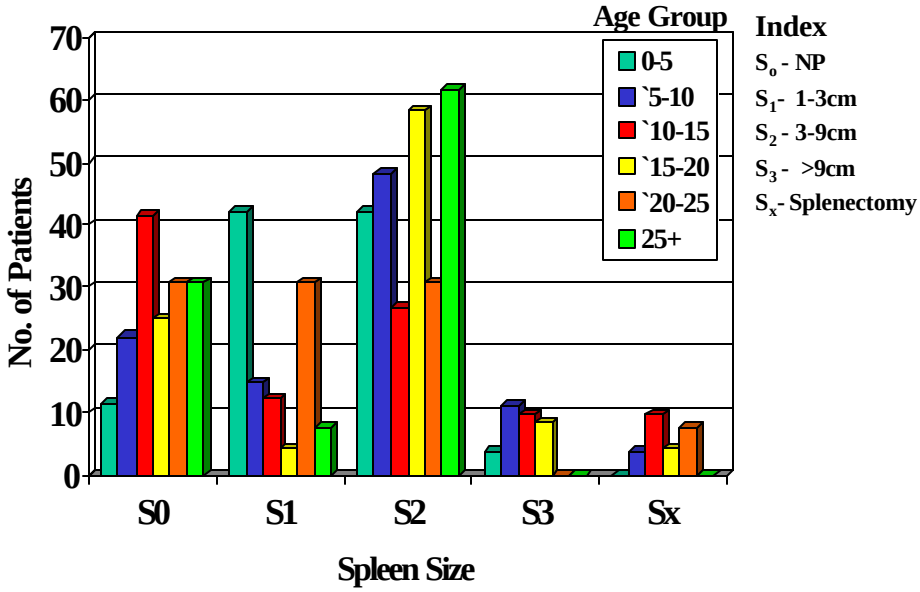
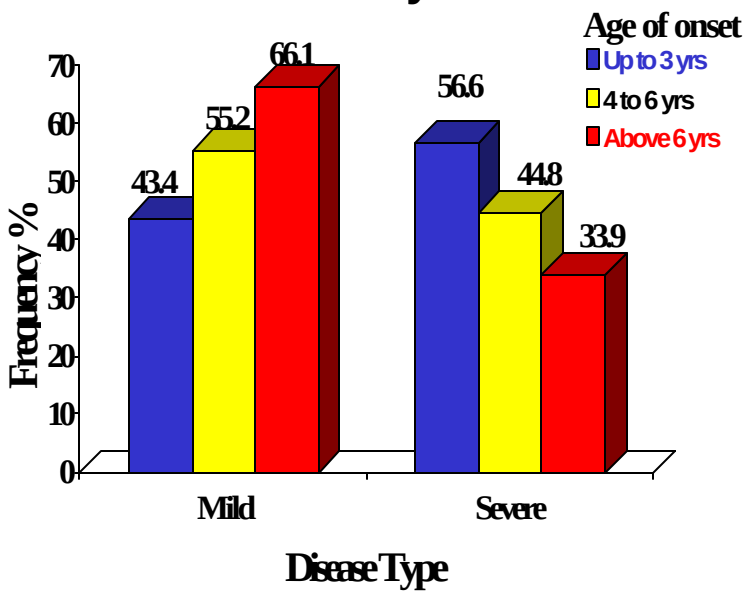


Fig. 1.2.2
Age of onset of symptoms of SCD and Severity



2.1 NUTRITION PROFILE OF BAIGAS - A PRIMITIVE TRIBES OF MADHYA PRADESH

(Ongoing Study)

Based on the earlier health and nutrition survey, Baiga's are found to be one of the most backward tribe. Hence this study was planned to cover 400 randomly selected households for clinical examination and anthropometry, and one third households for diet survey.

A total of 3282 population was covered, out of which 1354 individual were clinically examined. The proportion of severe malnutrition in 1-3 year children (Body weight less than 60% of the standard) was found to be 28.9 percent (Fig. 2.1.1). Only 5.5% children found normal in this tribe. Prevalence of body mass index was calculated. About 77.3 percent adult population had chronic energy deficiency (BMI 18.5) and only 0.33 percent adults were having BMI>25. Out of the total population surveyed, 7.7 percent had vitamin A deficiency symptoms (including Bitot's spot, Night blindness and conjunctival xerosis). Vitamin B complex deficiency was found in 0.5% individual. The prevalence of vitamin D deficiency among children was 3.7 and 0.2 percent respectively. The prevalence of severe anaemia was found to be 3.2%. The proportion of population, which did not have any clinically detectable morbidity, was 40.2%. Among children (1-14yrs.) URI was common morbid condition (34.0%) followed by Malaria (20.9%) and scabies (7.7%) (Fig. 2.1.2).

Diet survey was carried out in rainy and winter season in Baiga Chak area. A total of about 200 households were surveyed. Millets like Maize, Vargu, Samai and Rice were found to be the staple diet. Some forest based foods like bamboo shoots, mushroom and wild green leafy vegetable consumed by Baiga tribe in rainy season. The intake of millets and cereals, other vegetables were more than RDA (Fig.2.1.3). The consumption of pulses, root and tubers, oil and fat, milk, sugar and jaggery was less than RDA. The differences are statistically significant ($P<0.05$).

Fig. 2.1.4 and Fig. 2.1.5 depicts the intake of calories, iron, carotene, riboflavin, fat and zinc less than RDA. The differences are statistically significant ($P<0.05$). The intake of protein, calcium, vitamin 'C' and thiamin were higher than RDA.

Fig. 2.1.1: Nutritional Status of Baiga Children (n= 217)

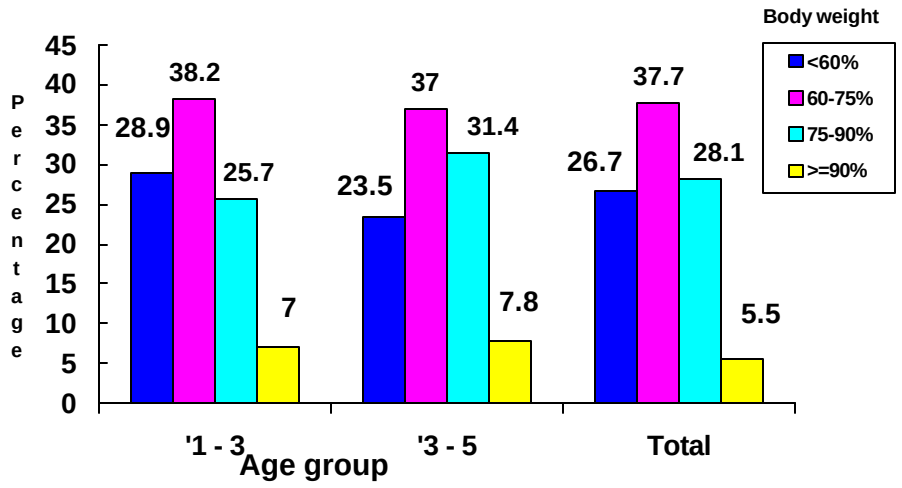


Fig. 2.1.2: Distribution of Major Morbidity Pattern

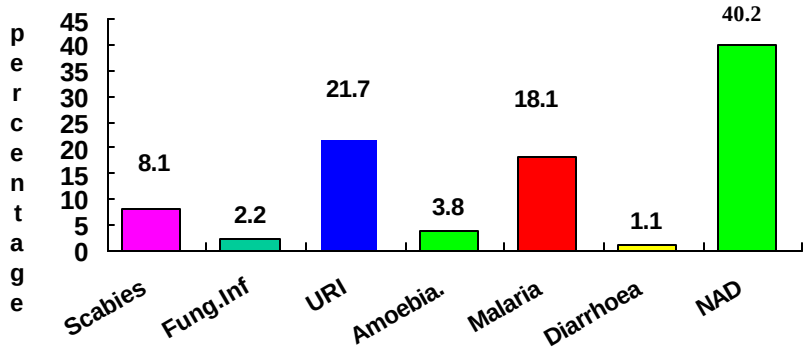


Fig. 2.1.3: Average Food Stuff Intake (gms/day)

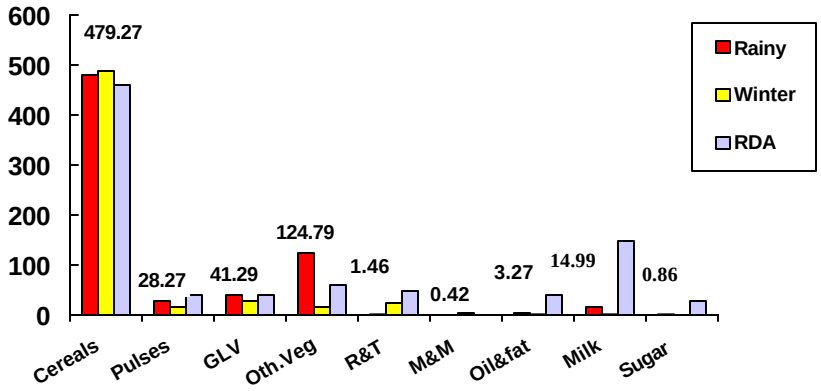


Fig. 2.1.4: Distribution of Average Nutrient Intake (per day)

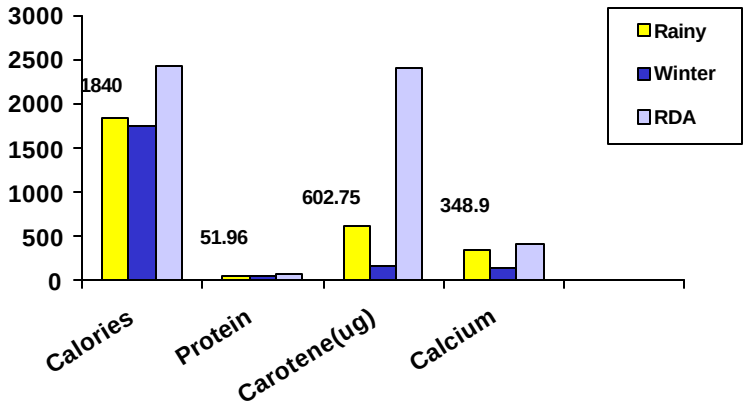
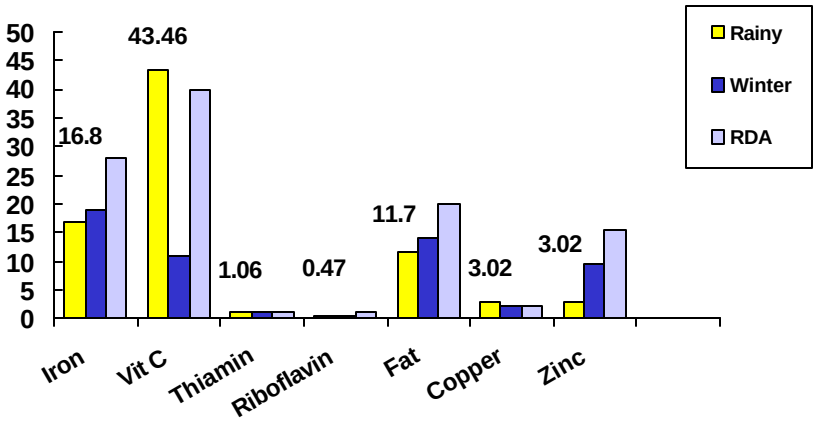


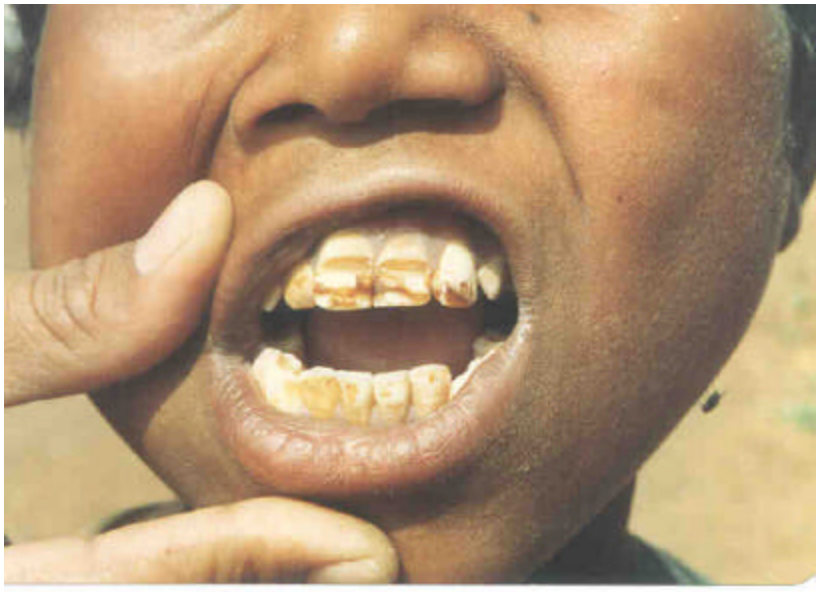
Fig. 2.1.5: Average Nutrient Intake (per day)



2.2 INVESTIGATION OF ENDEMIC FLUOROSIS IN NANDED DISTRICT OF MAHARASTRA:

At the request of Govt. of India, Ministry of Health, an investigation was undertaken to verify the 'ill effect on health of people of Nanded district due to presence of fluoride in water specially in the Kinwat and Bowker block" in April 2002. On verification it was found that the fluoride content of some of the villages of Kinwat block was very high (5.7 to 6.9ppm). Apart from dental fluorosis, cases of crippling fluorosis were also seen. This was reported to the Ministry of health, Govt. of India, and an indepth study has been proposed to be undertaken in that area to understand the etio-pathology of the disease and to map out the endemic area.

Fig. 2.2.1: A case of dental fluorosis from Kinwat Block of Nanded



3.1 DIFFERENTIAL DIAGNOSIS OF CERCARIAL DERMATITIS AND SCABIES WITH POSSIBLE CONTROL MEASURES IN TRIBAL AREA OF MADHYA PRADESH.

(Ongoing Study)

The study has been undertaken in collaboration with the department of Parasitology, Veterinary College, Jabalpur and is being carried out in two villages each from Narayanganj tehsil of Mandla district and Lakhanadon tehsil of Seoni district. Villages have been selected based on one major source for bathing by the villagers i.e. pond /rivulet. Clinical examination of the individuals was carried out with special emphasis on dermatitis / Scabies.

History of itching and development of rash after taking bath in local pond/rivulet have been observed in 65.8 % population. Almost all the individuals experienced localized lesions on the exposed parts. Itching starts after few minutes and rash appears which remains for few days and then subsides. In few cases, it gets complicated with secondary infection. The detail history revealed that there is a seasonal variation with higher prevalence of itching /dermatitis in winter and early summer.

Twenty percent individuals were found suffering from the dermatitis/scabies in the surveyed villages. Children had higher prevalence than the adults. Females were found affected more than the males.

Majority of the surveyed population take bath in the local pond/river. Most of them do not use soap for bathing. Fishermen and their family members apply oil or use home made preparation (oil + turmeric + chilly powder) before entering into water to prevent itching. Most of them do not take any treatment for Itching. However, they seek treatment from the indigenous practitioners in case of any complications like generalized dermatitis/ development of boils etc. Majority (68.3%) believes that the cause of itching is dirty water of the local pond/ rivulet. Snails from the local pond from all the villages were collected during field visits. They were found positive for cercariae except from one village.

3.2 HEALTH AND NUTRITIONAL STATUS OF SAHARIA - A PRIMITIVE TRIBE OF MADHYA PRADESH

(Ongoing Study)

Taking into consideration the concentration of tribal population, three districts namely Sheopur, Shivpuri and Guna have been selected for the study. From each district, one block has been chosen randomly. All the villages in the block were categorized into two depending on the distance from the health facility i.e. PHC/CHC (5 – 15 Kms and >15 Kms). Six to seven villages from these blocks (around 50 households / village) have been randomly selected covering about 1000 households of 18-20 villages of these districts.

All the available individuals of these villages were clinically examined. Anthropometric measurements have been taken on all the subjects using standardized equipments and standard procedures. Diet survey has been carried out using 24 hour recall method by trained investigator in every tenth household.

A total of 504 households of 16 villages of Sheopur and Shivpuri district have been covered during the study. Though many villages have motorable roads, most of them remain cutoff during monsoon. All the surveyed villages have potable water source in the form of tube wells fitted with hand pumps. Open defaecation is very common in all these villages. Most of the girls get married before the age of 16 Yrs. Average age at marriage has been observed to be 15.8. Average age of female at the time of the first childbirth is 16.9 years. It is striking to note that the relatives or dais conduct almost all the deliveries at home. Though the immunization coverage has been found to be satisfactory i.e. 85%, only 25.6% children have been found to be fully immunized as per their age and scheduled immunization. Majority of the mothers/ parents are not aware about the need of immunization.

As per Gomez classification for nutritional status using NCHS reference values, majority of the preschool children (93.5%) have been found undernourished. Moderate to severe under-nutrition has been seen in 59.5% children. Severe under-nutrition was observed in 15% children. Prevalence of under-nutrition has been found to be almost similar in both the sexes.

Prevalence of under-nutrition in preschool children (Fig. 3.2.1) in terms of under-weight, stunting, and wasting (weight for age, height for age and weight for height below –2SD respectively) was observed at 74.3% , 75.4%,and 20% respectively. Very few children were found above NCHS median values i.e. weight for age 2.4%, height for age 5.6%, and weight for height 12.3%. No difference in under-nutrition was found according to sex. Forty-four percent of the surveyed population had signs of anaemia. Vit.- A deficiency was observed in 8.2% children. The prevalence of Vit.- B complex deficiency was observed in 2.6% and Vit.- D deficiency in 7.8% children. Though overall prevalence of chronic energy deficiency in adults was found to be 55.2%, only 14% adults had severe CED.

Anaemia status has been categorized as per WHO recommended classification. Very high prevalence of anaemia (87.6%) has been observed in the tribe. Prevalence of moderate to severe anaemia has been found to be very high at 47.1%. Though overall prevalence of anaemia has been found more or less similar in both the sexes, moderate to severe anaemia have been found higher in females than in males. Analysis further revealed that in addition to anaemia, other morbidities observed were acute respiratory infection, cervical lymphadenopathy, suspected cases of pulmonary tuberculosis, skin infections including scabies with secondary infection, Vit.- A deficiency and eye infections including conjunctivitis.



Plate 3.2.1 : A Saharia Child patient of Marasmus

4.1 MALARIAL MORBIDITY AND ITS PREVENTION IN A TRIBAL SETTING

(Ongoing Study)

The study is being carried out in Dindori district, which is one of worst malaria affected district of Madhya Pradesh. The district constitutes 0.96% to the states population whereas it accounts for 11% of malaria and 8% of *P. falciparum* cases of the state. The area is under deltamethrine spray and the vector is exophilic in nature. Numerous Nullha, Natural Springs and Seepage water are the common breeding sites of vector (Fig. 4.1.1).

The households of experimental villages have been given deltamethrine impregnated (@ 25 mg/m^2) bed nets. In order to generate awareness about malaria and bed nets, health meetings and health camps were organized in study villages. School children were told about the life cycle of mosquitoes and malaria. Villagers were also demonstrated about the proper use of bed nets. The Monitoring of use of bed nets was carried out during the wee hours. About sixty eight percent households have been found using the bed nets (Fig. 4.1.2).

Fortnightly fever surveys are being carried out in all the experimental and control villages. Presumptive treatment of 600 mg chloroquine and paracetamol was given at the time of smear preparation. Slides were examined and radical treatment was provided to all the malaria positive cases. Monitoring of vector density was carried out every month in cattle sheds and human dwellings over a fixed period of time in study and control villages.

Slide positivity rate (SPR) and slide falciparum rate (SFR) have been found decreasing in all the villages but the difference has been statistically significant in experimental villages only (Table 4.1.1). Further, in the experimental villages, malaria infection was not found among the infants and children after intervention. During the rains *An. culicifacies* was the predominant species of the total anophelines and the density of *An. fluviatilis* remained very low. Marked impact on density has not been observed because of exophilic vector population.

Table - 4.1.1: MALARIA PREVALENCE IN STUDY AND CONTROL VILLAGES BEFORE AND AFTER INTERVENTION.

	Pre-intervention (Aug. – Oct.)			**Post-intervention** (Nov. – May.)			**Z-value SPR**	**Z-value SFR**
	BSC	**SPR**	**SFR**	**BSC**	**SPR**	**SFR**		
Exp (3 vill.)	260	20	18.8	297	9.4	8.7	4.20* p<0.001	4.10* p<0.001
Control (2 vill.)	83	12.05	8.43	177	10.0	8.8	0.52 p>0.05	0.12 p>0.05

BSC: Blood Slide Collected
SPR: Slide Positivity Rate
SFR: Slide Falciparum Rate

Insecticide susceptibility of *Anopheles culicifacies* were tested against 4% DDT and 5% Malathion using WHO standard test kit. Corrected mortality of 11% against DDT and 78.8% against malathion was observed after 24 hours of recovery period.

Test conducted against deltamethrine showed cent percent mortality within the exposure period of one hour.

Fig. 4.1.1

Mosquito Breeding site



Fig. 4.1.2

Villagers using Bednets



4.2 MALARIA IN PREGNANCY

(Ongoing Study)

One of the thurst area identified by the centre is “Malaria in Pregnancy” as pregnant women are highly susceptible to malaria infection. For this study a round the clock malaria clinic was established in district hospital Mandla to screen the pregnant women to examine the relationship between placental malaria and infant low birth weight and mortality.

A total of 182 pregnant women were seen with or without fever who deliver in the hospital. Blood smears were made immediately after delivery in parallel with peripheral blood smear. Smears were also made from umbilical cord blood to determine the frequency of transplacental transmission of malaria. On examination of the 53 positive placenta for malaria parasite, it was found that 49 were infected with P.falciparum. Only one P.vivax occurred in one case while 3 mixed infection of P. vivax and P.falciparum were found. Additionally one women died due to P.vivax infection in hospital. The infants born to infected mothers were of low birth weight as compared to infants born to non-infected mothers. These infants will be followed for one year to examine the occurrences of malaria infection during infancy.



5.1 ECONOMIC CONSEQUENCES OF SICKLE CELL DISEASE

(Completed study)

Thirty three cases of Sickle Cell disease from Kundam block, Jabalpur have been studied. Details of information on expenditure on treatment, mode of treatment etc. were collected by visiting them every month.

The frequency of episodes of illness has been observed higher during July-Oct (2.9) and March to June (2.8) but lower during Nov. to Feb. (2.0). In all, total episodes per sick person per year is 7.7. In 58% episodes the patients visited private doctor and 15% visited Indigenous practitioners. Twenty-one percent did not avail any treatment. The average expenditure per episode treated is Rs. 213.60 which in turn put burden of Rs. 1598.00 in a year on the affected household. Seasonal variation in expenditure on treatment has also been observed. The average expenditure per episode treated is highest during Nov to Feb (Rs.329.70) and lowest during July to Oct (110.50).

On an average, in a year, a patient has also to loose Rs. 290.70 in terms of wage.

5.2 ECONOMIC FACTOR IN CONTEXT OF CURATIVE HEALTH CARE IN SAHARIA TRIBE OF MADHYA PRADESH.

(Completed study)

The study has been carried out in Sheopur district of Madhya Pradesh. Two hundred fourteen Saharia households have been covered. The data was collected using open ended schedule. In depth data regarding their varied sources of income, expenditure pattern, awareness about health services, sources of treatment, expenditure on treatment as well as factors, affecting health care have been elicited.

The data reveals that 60% households are land less. The main source of income of Saharia households is agriculture related labour (67.6%). The annual household income per household is Rs.14,002/- and expenditure is Rs.13,387/-. The outstanding average debt per household is Rs.1,358/-. It has been observed that 64% of their expenditure is on food, 12% on intoxicants, 9% on clothings and 4% on medicine.

Based on last three months data, expenditure on treatment per household having sickness is Rs.580/-, while average expenditure on treatment per sick person is Rs.328.40. The wage loss per household due to sickness is Rs.140.10.

It may be mentioned that the data analyzed for mode of treatment reveals that when ill 84% visit private doctor, 10% govt. source and only 2% visit indigenous medical practitioners. Four percent ill person did not avail any treatment mainly due to lack of money. The main reason for not availing government health services is that no proper treatment is given (43.4%) followed by health centre being far off from the village (33.2%) and non-availability of medicine in the centre.

5.3 AN EVALUATION OF CHANGE IN FERTILITY LEVEL IN KHAIRWAR TRIBE OF SIDHI DISTRICT OF MADHYA PRADESH.

(Ongoing Study)

In a study carried out by RMRCT in 1992-93, the findings revealed that the fertility among the Khairwars of Kusmi block was significantly lower compared to the fertility of other population of the same block. The number of children per Khairwar couple was significantly lower (1.91) compared to 2.72 children of non-Khairwar couples ($p<0.05$). The problem of low fertility was found remarkably more (0.67 children/couple) in a village Harrai ($p<0.001$). The etiology of the sterility was studied by the center. Very high sexual promiscuity was observed in the tribe with VDRL reactively noted in 57% males and 70% females. The state administration was advised to launch long acting penicillin campaign. This study has been carried out to record whether the situation has changed since last 10 years.

This follow up study has been carried out in six villages of Kusmi block of Sidhi district. Fertility performance of 133 Khairwar and 99 non- Khairwar eligible couples has been studied. The relevant data were collected through structured schedules by trained investigators. The data has indicated that children ever born among the Khairwars has increased over the period of 10 years from 1992-2002 in Kusmi block. The overall fertility has increased by 0.97 i.e. fertility has increased by almost one child. In worst affected village Harrai, the fertility of Khairawar women has also shown similar picture where fertility has increased from 0.67 to 1.28. There is also a marked improvement in the proportion of children below 15 years of age during the same period i.e. 8 percent in the Kusmi block and 10 percent in the village Harrai (Table 5.3.1).

Table 5.3.1: FERTILITY PARAMETERS OF KHAIRWARS:

Characteristics	Reference year	
	I (1992)	II (2002)
A. Average no. of children born per eligible khairwar couple		
Kusmi	1.91	2.88
Harrai	0.67	1.28
B. Percentage of children below 15 yrs.		
Kusmi	31.4	39.33
Harrai	12.5	22.60

PROJECTS RECENTLY INITIATED

1. A Study of Socio-demographic and Health Indicators of the Primitive Tribes of Madhya Pradesh.
2. Bancroftian filariasis in Panna district – Clinical, Parasitological and Immunological Approach – A 10 years follow up.
3. Men as Supportive Partners in Reproductive and Sexual Health : An Investigation among the Khairwars of Sidhi District of Madhya Pradesh.

OTHER COLLABORATIVE STUDIES

Voluntary Counseling and Testing Centre

The HIV Surveillance Centre, functioning since 1986 was renamed as Voluntary Counseling and Testing Centre in the year 2001. The centre, besides performing HIV testing, also provides pre test and post test counseling.

In the year 2001, 74 of 3189 samples and in the year 2002, 64 of 2513 samples were found to be HIV positive. The centre has been recognized as State Level Referral Laboratory for HIV testing in this year.

The centre participated in Sentinel Surveillance Program of National AIDS Control Organization, in which 2183 serum samples from low & high risk groups were tested, of which 11 were found to be positive.

NNMB activities:

NNMB MP Unit is functioning from the center since 1986. Times to time different nutritional surveys are being undertaken by the unit as per the guidelines of NIN, Hyderabad. The unit is presently involved in micronutrient deficiency survey in Madhya Pradesh and Chhattisgarh. So far a total of 7 districts have been completed out of the 16 districts. The data has been sent to NIN for verification and analysis along with the other state data.

Papers published

1. **Singh, N.** and Shukla M.M. (2002). Field evaluation of post treatment sensitivity for monitoring parasite clearance of Plasmodium falciparum malaria using Determine^{TM} Malaria Pf in central India. *American Journal of Tropical Medicine and Hygiene* 66 (3): 314-316.

2. **Singh, N.**, Nagpal, A.C. and Gupta, R.B. (2002). Failure of chloroquine therapy in a splenectomized child infected with Plasmodium vivax. *Annals of Tropical Medicine and Parasitology* 96 (1): 109-111.

3. **Singh, N.** and Sharma, V.P. (2002). Pattern of rainfall and malaria in Madhya Pradesh, central India. *Annals of Tropical Medicine and Parasitology* 96 (4): 349-359.

4. **Singh, N**., and Shukla, M.M. (2002). Socio-cultural barriers in accepting malaria chemoprophylaxis by pregnant women in central India, a pilot study. *Journal of Health Population and Nutrition* 20 (1): 93-95.

5. **Singh, N.,** Saxena, A. and Sharma, V.P. (2002). Usefulness of an inexpensive, paracheck® test in detecting a symptomatic infectious reservoir of Plasmodium falciparum during dry season in an inaccessible terrain in central India. *Journal of Infection* 45 (3): 165-168.

6. **Pandey, G.D.** (2002). "Maternal and Child Health Care in Relation to Literacy in Bharia – A Primitive Tribe of Madhya Pradesh". Published in *Status of Women in Rural Societies* (Choubey, R. and Saini, K. editors). Aditya Publishers , Bina (M.P.).

7. **Pandey, G.D**., Roy J (2002). "Some aspect of socio-cultural factors associated with the persistence of Yaws in Abhujmarias" *South Asian Anthropologist* 2 (2).

8. **Pandey, G.D**. and Abbad A. (2002). Birth related practices in Hill Korwas – A primitive tribe of Chhattisgarh. *Tribal Health Bulletin* 8 (1).

9. **Mishra, D.K**., Tiwary, B.K. and Tiwary, R.S. (2002). Economic factors and curative health care in Baiga tribe of Baiga Chak, Dindori. *Ambedkar Journal of Social Development and Justice* Vol X.

10. **Mishra, D.K.** and Tiwary, B.K.(2002). Economic characteristics and curative health care of Kodaku tribe of Sarguja district, *Tribal Health Bulletin* 9(1).

11. Deshmukh, A. B. , Damle, A.S. and **Anvikar, A. (**2002). Epidemiology of Human immunodeficiency virus vs STD. Milestone – *The Journal of the Director, Medical Education and Research,* Govt. of Maharashtra 1(1):57-63.

12. Venkaiah, K.,**.Damayanti**, **K.,** Umanayak and Vijayaraghavan, K. (2002). Diet and nutritional status of rural adolescents in India. *European Journal of Clinical Nutrition* 56, 1-7.

Papers accepted/communicated

1. Singh, N.**,** Valecha, N., Nagpal, A.C., Mishra, S.S., Verma, H.S. and Subbarao, S.K. (2002). The hospital and field-based performances of the OptiMAL test, for malaria diagnosis and treatment monitoring in central India *Annals of Tropical Medicine and Hygiene* . (In Press).

2. Singh, N., Mishra, A.K, Shukla, M.M. and Chand, S.K. (2002). Forest malaria in Chhindwara, Madhya Pradesh (central India) – A case study in an ethnic tribal community. *American Journal of Tropical Medicine and Hygiene.* (In Press).

3. Gupta R.B., Solanki S.S. and Singh N. (2002). Splenic infarction in an Indian youth – A brief report. *American Journal of Haemotology*, U.S.A. (Communicated).

4. Rao V.G., Yadav R., Bhondeley M.K., Sahare L. and Das S. (2002) Worm infestations and anemia – A public health problem among tribal pre-school children of Madhya Pradesh – *Journal of Communicable Diseases* (In Press).

5. Rao V.G., Yadav R., Bhondeley M.K. and Das S. (2002). Intestinal parasitic infections, anemia, and under-nutrition among tribal adolescents of Madhya Pradesh. *Indian Journal of Community Medicine* (Communicated).

6. Rao V.G., Yadav R. and Anvikar A.(2002). AIDS awareness among school children. *Indian Journal of Medical Science* (Communicated).

Conferences/workshops attended

Dr. Neeru Singh

i. Attended a workshop on "Epidemic preparedness" at Regional Health and Family Welfare Training Centre, Jabalpur from July 4 -7, 2002 and delivered three lectures.

ii. Delivered a lecture in a workshop on "Intersectoral co-ordination in Mandla district on July, 2, 2002.

iii. Attended a workshop on "Placental Malaria" in Yaounde Cameroon from July 30 - August 2, 2002.

iv. Participated in Global Health Forum No.6, Arusha, Tanjania, November 10-18, 2002.

v. Attended a workshop on "Impregnated Bednet Meta Analysis" at NAMP, Delhi on May 31, 2002.

vi. Attended a workshop on "Malaria – Cause, Prevention and Control" at Mandla on June 13, 2002 and presented a paper on "Malaria in Dindori and Mandla".

Dr. G.D. Pandey

i. Attended Management Development Programme at Indian Institute of Management, Kolkata from February 8-10, 2002.

ii. Attended advance oriented workshop on Information and Communication held at NIOH, Ahmedabad from June 25 – 27, 2002.

iii. Attended ISHS conference at IRMS, New Delhi, from December 19-22, 2002.

Dr. D. K. Mishra

Attended a training course on Decentralized Management of Rural Health Care at NIRD, Hyderabad from July 22-27, 2002.

Dr. R. B.Gupta

Participated in "Internal Symposium on Challenges In Malaria and Prospect for Research", at New Delhi from October 29-31, 2002.

Mr. Gyan Chand

Participated in International Symposium on Challenges in Malaria & Prospects for Research, organized by Malaria Research Centre, New Delhi from October 9-31, 2002.

Dr. D. Das

i. Attended ICMR-Ellison Foundation sponsored workshop on Immunoparasitology at RMRC, Bhubaneswar from February 11-15, 2002.

ii. Attended XXIX Annual meeting of the Indian Immunology Society and Symposium on Immunoparasitology at Bhubaneswar from November 27-29, 2002 and presented a poster on Prevalence of Filariasis in Panna District of M.P.

Dr. C. K. Dolla

Attended training workshop (Basic phase I) on "Burden of Disease Estimation" at I.H.S., Hyderabad from December 10-22, 2001.

Dr. S. Kumar

Attended WHO workshop on "Epidemic Preparedness and Response" at NIE, Chennai from February 4 -14, 2002.

Mr. Dinesh Kumar

Attended training workshop (Basic phase I) on "Burden of Disease Estimation" at I.H.S., Hyderabad from December 10-22, 2001.

Dr. Rajiv Yadav

Attended Basic Course on Biostatistics for Medical Officers at NIE, Chennai on October, 2002.

Other Scientific activities

Dr. Neeru Singh

i. Attended a meeting at ICMR, Headquarters, New Delhi chaired by Hon. Health Minister on March 19, 2002.
ii. Visited Indian Institute of Science, Bangalore for discussion with Prof. G.Padmanabhan for Molecular Method of Chloroquine Resistance on May 5 and 6, 2002.
iii. Organized SAC meeting of RMRCT, Jabalpur on May27, 2002.
iv. Organized the inauguration ceremony of Main Lab. Building on May28, 2002 in presence of Dr.Padam Singh, Addl. Director General, ICMR, New Delhi.
v. Visited Dindori district along with Dr.V.P.Sharma, WHO consultant on the request of State Govt. of M.P. in July, 2002.
vi. Attended meeting with Collector Mandla for Malaria Control on September 3, 2002.
vii. Attended a meeting with health officials of Mandla to control malaria on September 16, 2002.
viii. Attended task force meeting on Dengue on October 1,2002 at ICMR, New Delhi.
ix. Attended a symposium on the occasion of Silver Jubilee function of MRC from October 29 to 31, 2002 in Delhi and delivered a lecture on 'Malaria in Pregnancy'.
x. Attended a workshop under EMCP for Medical Officers of Madhya Pradesh on November 25 and 26, 2002 at Regional Health and Family Welfare Training Center, Jabalpur.
xi. Participated in a meeting organized by DANIDA for operational research on December 20,2002 at Academy of Administration, Bhopal.

Dr. D. K. Mishra

Organized 'Science Day' celebration and delivered a talk on 'Wealth from Waste' in a village of Jabalpur on February 28, 2002.

Dr. R. B. Gupta

i. Providing technical support to NSCB, Medical College, Jabalpur in identification of sickle cell disease patients.
ii. Organized a training programme for doctors and technicians of Mandla district on identification of sickle cell disease and related disorders at RMRCT, Jabalpur in June, 2002.

Dr. V. G. Rao

i. Organized seminar on HIV/AIDS at Govt. Girls H.S. School, Patan & Exhibition on World AIDS Day, December 2001.
ii. Delivered lecture on AIDS epidemiology at Railway Hospital Jabalpur , December 2001.
iii. Delivered lecture on "HIV/AIDS Prevention" at St. Alloycious College, Jabalpur , December 2001.
iv. Delivered lecture on AIDS for higher secondary school teachers at PSM college, Jabalpur, May 2002.

Dr. T. Chakma

i. Delivered two lectures on virology and blood safety of HIV/AIDS in the workshop on December 24, 2001 and January 5, 2002 organized by Regional Health and Family Welfare Training Centre, Jabalpur.
ii. Delivered a lecture on counseling and women and HIV/AIDS in a training workshop for medical practitioners of Jabalpur held on January 10, 2002. organized by Regional Health and Family Welfare Training Centre, Jabalpur .
iii. Delivered two lectures on history and virology of HIV/AIDS in training workshop organized by Regional Health and Family Welfare Training Centre, Jabalpur on January 16, 2002 and November 26, 2002.
iv. Delivered a lecture on legal and ethical issues of HIV/AIDS in a workshop for counselors of MP AIDS control society on January 17, 2002 organized by Regional Health and Family Welfare Training Centre, Jabalpur.
v. Delivered a lecture on geographical distribution of diseases in central India in a reorientation course on January 22, 2002, organized by Academy staff college, Jabalpur.
vi. Delivered two lectures on management and care of HIV/AIDS patients in a workshop organized by Regional Health and Family welfare Training Centre, Jabalpur on February 14, and November26, 2002.
vii. Attended a tele-conference workshop as an expert for training of the Panchayat representatives on July 20, 2002 at the request of State AIDS Control Society, held at Academy Staff College, Bhopal.
viii. Delivered a guest lecture on management and care of HIV/AIDS patients in a CME on December 4, 2002 organized by Divisional Railway Hospital, Jabalpur.
ix. Attended workshop on project implementation paper for Madhya Pradesh at the request of M.P. AIDS Control Society held in Bhopal from May 1-3, 2002.
x. Attended Scientific Advisory Group meeting at ICMR headquarter in December 2001.
xi. Participated as co-trainer for fluorosis control and its management for medical officers of Mandla and Dindori districts held at Mandla on December 9, 2001, organized by fluorosis research and rural development foundation, New Delhi.

Dr. Anoop Anvikar

i. Attended CMIS training at MPSACS Bhopal on June 27, 2002.
ii. Delivered lecture on AIDS to VCTC in - Charge of MP, Chhattisgarh, Rajasthan and Gujarat at MPSACS Bhopal on July 24, 2002.
iii. Delivered lecture on AIDS to volunteers of Nehru Yuva Sangh (Govt. of India) Jabalpur on August 16, 2002.
iv. Delivered lecture on AIDS to school children on November 29, 2002.
v. Delivered public talk on AIDS at Indian Oil Corporation, Bhitoni, Jabalpur on December 2, 2002.
vi. Participated in Sentinel Surveillance of HIV, HBV, HCV & VDRL between August & November 2002.

Dr. K. B. Saha

i. The abstract of the paper entitled, " Gestation to parturition – Traditional Cultural Beliefs and Practices : An Hindrance to utilization of Maternal Health Services (An evidence from Primitive Lodha Tribe of Eastern India)" has been accepted for inclusion as a poster in the 2002 Annual Population Association of America (PAA) meetings in Atlanta (U.S.A.), May 9-11, 2002.
ii. Communicated the abstract of the paper entitled, "Towards Developing Communication Strategies for HIV/AIDS control among Scheduled Tribes and Scheduled Castes Women in North Eastern Region of India" for its inclusion in the Population Association of America, 2003 Annual Meeting at U.S.A.

Dr. S. C. Dixit

Delivered a lecture on AIDS awareness in a workshop organized by Rajiv Sikshya Maha Vidyalaya, Jabalpur, sponsored by UNESCO in June, 2002. and demonstrated the participants the technique of ELISA testing in RMRCT, Lab.

Mr. Gyanchand

Providing technical support to health officials of Mandla district regarding malaria eradication in Baiga tribe.

Dr. C. K. Dolla

Attended three AIDS awareness campaign at Jabalpur in February 2002, organized by Directorate of Field Publicity, Jabalpur.

Dr. S. Kumar

Attended AIDS awareness compaign at Jabalpur, organized by Directorate of Field Publicity, Govt. of India from February,13 -18, 2002.

Members of the 16th Scientific Advisory Committee

Chairman	Lt. Gen. D. Raghunath, Principal Executive, Sir, Dorabji Tata Centre for Research in Tropical Diseases, Bangalore–560 012.
Renowned Scientists	Dr. Salil Basu, Foundation for Research & Development for Underprivileged group, New Delhi – 110019. Dr. D.S. Agarwal, B-24, Swasthya Vihar, Delhi – 92 Dr. M.K. Bhan, Deptt. of Paediatrics AIIMS, New Delhi Dr. Bharadwaj, Medical College, Jabalpur Dr. Padam Singh, Addl. DG, ICMR
Subject Specialist	Dr. Sarla K. Subbarao, Director, MRC, Delhi. Dr. Mahanta, Director, RMRC, Dibrugarh Dr. V.K. Shrivastava, Prof. & Head, PSM, K.G. Medical College, Lucknow Dr. (Mrs.) A.V.Shrikhande, Prof. & Head Pathology, Indira Gandhi Medical college, Nagpur Dr. A.P. Dash, Director, Institute of Life Sciences, Bhubneswar
Special invitees	Dr. P. Narayanan, Director, TRC, Chennai Dr. Arvind Pandey, Director, IRMS, New Delhi Dr. Dipika Mohanty, Director, IIH, Mumbai Dr. G.Padmanabhan, IISC, Bangalore Dr. Sharat Chandra, IISC, Bangalore Dr. Sayed E. Hasnain, Hyderabad
Representatives from other organizations	Dr. P.K. Bajaj, Director, Health Services, Bhopal The Director, Tribal Research Institute, Bhopal The Health Commissioner, Govt. of MP, Bhopal The Commissioner, Deptt. of Tribal Welfare, Govt. of MP, Bhopal
Representatives from Division	Dr. Lalit Kant, Sr. DDG, ECD, ICMR, New Delhi Dr. Dipali Mukherjee, Chief, ECD, ICMR, New Delhi Dr. Rashmi Arora, DDG, ECD, ICMR, New Delhi
DG's Nominee	Dr. Nandan Singh, Hyderabad – 500 007
Member Secretary	Dr. Neeru Singh, OIC, RMRCT, Jabalpur

Members of Ethics Committee

1.	Dr.A.S.Rathore Prof. & Head, Raidotherapy NSCB Medical College, Jabalpur.	Chairperson
2.	Dr.(Mrs) Shashi Khare Prof. & Head, Deptt. Of Gynaecology, NSCB Medical College, Jabalpur.	Member
3.	Dr. (Mrs) Kiran Hasija Prof. & Head, Biochemistry NSCB Medical College, Jabalpur.	Member
4.	Dr. A.C. Nagpal Associate Prof. Deptt. of Medicine, NSCB Medical College, Jabalpur.	Member
5.	Dr.H.S.Verma Associate Prof., Dept. of Orthopedic NSCB Medical College, Jabalpur.	Member
6.	Dr.V.K. Bhardwaj Asstt. Prof. Deptt. of Paediatric NSCB Medical College, Jabalpur.	Member
7.	Sh. Pradeep Singh NGO, Society for Resource Integration and Development Action Jabalpur	Member
8.	Sh. A. Adhikari Advocate, High court, Jabalpur	Member
9.	Dr. P.Mishra, Reader in Sociology, Rani Durgavati University, Jabalpur	Member
10.	Dr. T. Chakma, Asstt. Director, RMRCT, Jabalpur	Member
11.	Dr. Neeru Singh, OIC, RMRCT, Jabalpur	Member Secretary

Calender of Events 2002

1. The Centre celebrated National Science Day on February. Dr. D. K. Mishra, A.D. and his team organized a function at Kungua village of Jabalpur where he addressed the gathering on the theme "Wealth from Waste".

2. The Centre celebrated 'Technology Day' in May. Dr. S. C. Dixit and his team organized a function at Lampta village where he addressed the gathering on Biotechnology and Human Genome.

3. Meeting of Scientific Advisory Committee of the Centre was held May 27-28.

4. Dr. Padam Singh, Addl. Director General, ICMR, New Delhi inaugurated the main laboratory building of the Centre on 28th May-2002.

5. The Centre observed Malaria month in June and organized Health meetings and Health Camps in Bijadandi and Narayanganj blocks.

6. Rajbhasha Day was celebrated in the Centre on 14th September where prizes were distributed to the officials by the Officer - in - Charge for their good performance in the official language.

7. The Centre celebrated Annual Day on 10th October 2002 where Social Cultural Programs were organized. Prizes were distributed to the winners by the Officer - in – Charge.

8. The Centre celebrated Foundation Day on December 27, where Foundation Day Lecture was delivered by Prof. (Dr.) N. K. Ganguly, D.G., ICMR. The other dignitaries who attended the function included Mr. P. D. Meena, IAS, Health Commissioner, M.P., Dr. V. P. Sharma, Ex. ADG, ICMR, Prof. V. S. Chauhan, Director, ICGB, New Delhi and Dr. A. Kaur, Dean, NSCB Medical College, Jabalpur and Dr. Meeta Shrivastava Hospital Superintendent, NSCB Medical College, Jabalpur.

Some forth coming events - 2003

1. Symposium on Malaria in the month of February.
2. International conference on Vector and Vector Born Diseases in Oct. 2003.

Distinguished Visitors to the Centre

1. Prof. (Dr) N. K. Ganguly, Director General, ICMR, New Delhi.
2. Dr. Padam Singh, Addl. Director General, ICMR, New Delhi.
3. Mr. P.D. Meena, IAS, Health Commissioner, Govt. of Madhya Pradesh, Bhopal.
4. Dr. V. P. Sharma, Retd. Addl. Director General, ICMR, New Delhi.
5. Prof. V. S. Chauhan, Director, ICGEB, New Delhi.
6. Dr. Amarjeet Kaur, Dean, NSCB Medical college, Jabalpur
7. Dr. Meeta Srivastava, Hospital Superintendent, NSCB Medical college, Jabalpur.
8. Dr. Uday Kumar, Immunologist, CDC, Atlanta, USA.
9. Dr. Monica Parise, CDC, Atlanta, USA.
10. Dr. A.N. Mittal, Joint Director, Health Services, Govt. of M.P., Bhopal.
11. Dr. P.K. Bajaj, Director, Health Services, Govt. of M.P., Bhopal..
12. Dr. A.K. Sushila, Executive Director, Fluorosis Research and Rural Development Foundation, New Delhi.
13. Mr. Kamal Bose, Under Secretary, Ministry of Health and Family Welfare, Govt. of India, New Delhi.
14. Lt. Gen. (Dr.) D. Raghunath, Principal Executive, Sir, Dorabji Tata Centre for Research in Tropical Diseases, Bangalore.

Other activities

An Administrative Workshop was Organized at the Centre for Scientific and Administrative Staff. Mr.Lakshminarayan, Ex.Sr.DDG (Admn) and Mr.V.K.Kapoor, A.D.G.(Admn) explained the participants about the various aspects of Administration.

राजभाषा नीति के कार्यान्वयन एवं अनुपाल से संबंधित प्रगति रिपोर्ट

क्षेत्रीय जनजाति आयुर्विज्ञान अनुसंधान केंद्र, जबलपुर में भारत सरकार, गृह मंत्रालय, राजभाषा विभाग की राजभाषा नीति के समुचित कार्यान्वयन और अनुपालन के लिए सतत प्रयास किए जा रहे हैं :

1. राजभाषा नीति कार्यान्वयन समिति

प्रभारी अधिकारी महोदया की अध्यक्षता में गठित इस समिति में वरिष्ठ वैज्ञानिक और प्रशासनिक अधिकारी सम्मिलित हैं। प्रत्येक तिमाही में इस समिति की बैठक होती है। और सरकार द्वारा निर्धारित लक्ष्यों को प्राप्त करने के उपायों पर विचार-विमर्श कर आगे की रणनीति निर्धारित की जाती है। अभी तक इस समिति की 41 बैठकें हो चुकी हैं। समिति की 38वीं बैठक 21.12.2001को तथा 39 वीं 28.3.2002 को सम्पन्न हुई थी।

2. हिंदी पत्राचार:

इस केंद्र से भेजे जाने वाले पत्र,तार,फेक्स-संदेश आदि हिंदी में ही भेजे जा रहे हैं। इस मद में केंद्र द्वारा शत-प्रतिशत लक्ष्य प्राप्त कर लिया गया है। ''ग'' क्षेत्र को पत्र भेजते समय आवश्यकतानुसार हिंदी अनुवाद भी साथ में भेजा जाता है। दिसंबर, 2001, मार्च, 2002 और जून,2002 की तिमाही रिपोर्टों में क्रमशः 689,519 और 612 पत्र मूलतः हिंदी में ''क'' क्षेत्र को भेजे गए।

3. धारा 3 (3) एवं राजभाषा नियम -5 का अनुपालन :

राजभाषा अधिनियम 1963 (यथासंशोधित 1967) की धारा 3(3) के अनुपालन में सामान्य आदेश, परिपत्र आदि सदैव द्विभाषी रुप में ही जारी किए जाते हैं। रिक्त पदों के विज्ञापन, निविदाएं भी समय-समय पर द्विभाषी प्रकाशित कराई जाती हैं।

राजभाषा नियम-5 के अनुपालन हेतु हिंदी में प्राप्त पत्रों, आवेदन/अभिवेदन आदि के जवाब अनिवार्यतः हिंदी में ही दिए जाते हैं।

4. प्रशिक्षण

इस केंद्र के अधिकारियों/कर्मचारियों को हिंदी का कार्यसाधक ज्ञान/ प्रवीणता प्राप्त है और यह केंद्र राजभाषा नियम 10 (4) के अंतर्गत अधिसूचित है।

हिंदी टंकण में प्रशिक्षण पूरा करा लिया गया है। निजी सहायक को भी हिंदी शिक्षण योजना से हिंदी आशुलिपि प्रशिक्षण दिलाया गया है। प्रशिक्षण हेतु केवल एक आशुलिपिक (परिवीक्षाधीन) शेष है, जिन्हें शीघ्र ही प्रशिक्षित कराया जाएगा।

5. कार्यशालाएँ एवं प्रोत्साहन योजनाएं और हिंदी-दिवस/पखवाड़ा:

इस केंद्र में समय-समय पर हिंदी प्रशिक्षण कार्यशालाओं का आयोजन कर अधिकारियों/कर्मचारियों को हिंदी में सरकारी कार्य करने हेतु प्रोत्साहित किया जाता है। इसके अतिरिक्त प्रतिवर्ष प्रोत्साहन योजना संचालित की जाती है जिसमें कर्मचारी बढ-चढकर हिस्सा लेते हैं और उन्हें निर्धारित नकद पुरस्कार दिए जाते हैं। प्रतिवर्ष माह सितम्बर में हिंदी-दिवस/पखवाड़ा मनाया जाता है।

6. हिंदी में प्रकाशित साहित्यक कृतियाँ एवं सहायक साहित्य :

इस केन्द्र में अधिकारियों/कर्मचारियों को पढने के लिए हिंदी की श्रेष्ठ साहित्यक कृतियाँ-कहानी, कविताएं, उपन्यास आदि उपलब्ध कराए जाते हैं। इसके अतिरिक्त राजभाषा विभाग द्वारा प्रकाशित कार्यलय सहायिका, बृहत प्रशासन शब्दावली, देवनगरी तार, आवेदन प्रारुप, शब्दावली, शब्दकोश आदि के रुप में सहायक-साहित्य भी उपलब्ध कराया जा रहा हैं।

7. प्रकाशन

इस अनुसंधान केंद्र में जनजातियों के स्वास्थ्य से संबंधित एक बुलेटिन हिंदी और अंग्रेजी में प्रकाशित होता है। हिंदी में यह ''आदिवासी स्वास्थ्य पत्रिका'' शीर्षक से प्रकाशित किया जा रहा है।

8. विशेष उपलब्धियाँ :

सरकार द्वारा निर्धारित लक्ष्य प्राप्त करने की दिशा में निरंतर अग्रसर रहते हुए इस केंद्र ने ''नगर राजभाषा कार्यान्वयन समिति'' जबलपुर से अभी तक दो बार ''चलित शील्ड'' और सात बार प्रशस्ति-पत्र प्राप्त किए हैं। इस अवधि में दिनांक 15.5.2002 को ''नराकास'' जबलपुर की 40 वीं बैठक में इस केंद्र को द्वितीय स्थान प्राप्त करने पर प्रशस्ति-पत्र से सम्मानित किया गया। केंद्र की प्रभारी अधिकारी डॉ. नीरु सिंह ने नगर राजभाषा समिति के अध्यक्ष से यह सम्मान प्राप्त किया। ''नराकास'' जबलपुर द्वारा प्रकाशित पत्रिका ''मंथन'' (अंक-6) में केन्द्र को प्राप्त इन उपलब्धियों को छायाचित्रों सहित प्रमुखता से प्रकाशित किया है।



The Director General delivering
the foundation day lecture.



The Director General presenting momento to
Dr. A. Kaur
(Dean N.S.C.B. Medical College, Jabalpur)

Dr. Padam Singh
(Addl. D.G.)
delivering the inaugural day lecture





Dr. P. K. Bajaj
(Director, Health Service Govt. of M.P.)
addressing the inaugural day function.

Mr. P. D. Meena
(Health Commissioner)
addressing the scientists on foundation day.





Lt. Gen. D. Raghunath
addressing the inaugural day function.

Dr. Padam Singh

Chairing the inaugural function of Main Laboratory Building





Prof. N.K. Ganguly

Chairing the Foundation day Function

Administrative Workshop in Progress





Director General visiting the field area