

Health pattern of the rural people in Lower Ganga Plain

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Introduction

Health is one of the basic themes of present day study. It contributes directly to welfare by reducing sickness, child mortality, as well as by increasing life expectancy and improving labour's productivity. Health is considered as a pivotal for achieving over all development of a region. In other words, health is regarded as an indispensable human capital which plays a key role in improving the quality of life. The World Bank's Sector Strategy (1997) rightly pointed out that good health contributes to the overall quality of life as well as to productivity. Health in this sense is not only an output of society and worthwhile in its own terms, it is also an asset for a community, a resource in the form of energy, ability, talents and other mental and physical capabilities of normal functioning in a given environment.

Health is however not a static phenomenon because it varies in space and time, across age, gender, class, education, occupation and income. Such variation is the cumulative effects of unequal distribution and development of social, economic, cultural, political and physical resources of changing nature. African Development Report on Human Capital Development (1998), SING, A. K. (1983) and Human Development Report (1998) have also laid emphasis on several socio-economic aspects of population particularly on improved food and nutrition, education in improving health of the people as these elements interact positively in many ways in making out a good life at all spatial levels.

Objectives

In view of the above importance and problems, the present paper focuses on the variation in the pattern of health of the rural people across age groups and sex, social groups vis-a-vis educational and occupational categories. Finally, suggestion are made for improving the health status of the rural people for better life.

Methodology

Data base

To accomplish the above work a rural Community Development Block i. e. Mangolkote of Burdwan District has been selected as a representative of the Lower

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Ganga Plain from Eastern India. It is so because the nature and characteristics of this Block are similar to that of other parts of the Lower Ganga Plain. This Block comprises 128 inhabited villages in which the share of Cultivators dominated and Agricultural Labourers dominated villages remains almost equal. Out of the total villages 7 Cultivators dominated and another 7 Agricultural Labourers dominated villages altogether amounting to around 11% were separately selected for household survey following the simple random sampling without replacement technique.

Similarly, 30 households from each village were selected following the same technique. Thus, the total number of villages and households became 14 and 420 respectively to serve as the ultimate sample units of study. Finally, the primary data relating to various qualitative and quantitative health indicators were collected from 420 households comprising of 210 from Cultivators dominated and another 210 from Agricultural Labourers dominated villages for synthesis and analysis of the data.

Concept of measuring health

Different scholars such as RAZA, M. (1990), TREWARTHA, G. T. (1967), SMITH, D. M. (1997), BASU, S. (1992), PACIONE, M. (1988), MADAN, G. R. (1983) and MUKHERJEE, B. M. (1986) and others have used different quantitative and qualitative indicators such as height and weight of the body, body temperature, blood pressure, counts of red blood and white blood corpuscle, infant mortality rate, general mortality, problems of hair, eyes, lips, gums, teeth, skin, gland, life expectancy, number of doctors, hospital and beds per unit population, safe water supply, literacy, education, per capita income, expenditure on health, disease of various types, food and nutrition, calorie intake, capacity to do manual work for standard working hours, clear eye sight and memory condition etc. in measuring health of the people but their quantitative and qualitative indicators are applicable to the common people at regional, state and national levels only. Investigators have considered only those quantitative and qualitative parameters that are directly or indirectly related to mental and physical capacities of individuals.

These are the number and types of diseases, condition of appetite, digestive problem, memory capacity, mental tension, blood pressure, eye problem, E.N.T. problems, dizziness, physical and mental problem while working continuously for 6–8 hours standard working period, problems arise during working period in sun, rain and cold, problems in carrying normal head load, state of sleeping, feeling of weakness and tiredness, feeling of laziness, whether enthusiastic to work, whether two times meal and breakfast are taken in time, number of visit to government and private hospitals or clinics, per head total medical cost in the last one year, types of drinking water, number of days of pulse, green and other vegetables taken by the individuals in a week, how many days in a week an individual takes ghee/butter, milk, eggs, meat, fish etc., frequency of taking smoking, tobacco, alcoholic materials, whether the food is ade-

quately available or not at household level, whether the house is ventilated or unventilated, whether breath is sweet or not, educational achievements including training and skills and income levels etc.

Thus, while preparing master data sheets each variable was given certain positive or negative weightage depending upon its positive or negative conditions of individual. Thereafter, the total composite scores of all variables and also the total positive or negative scores of each individual were separately worked out and serially listed from 1 to 1705.

Finally, for each person the percentage of positive composite score to total composite score (i.e. positive composite score + negative composite score = 100 per cent) was calculated. On the basis of variation in the percentages of positive composite scores of individuals five levels of health have been made. These are:

1. Very good (80 per cent and above positive composite score);
2. Good (60–80 per cent positive composite score);
3. Average (40–60 per cent positive composite score);
4. Poor (20–40 per cent positive composite score);
5. Very poor (less than 20 per cent positive composite score).

Analysis

Health pattern by age group and sex

Table. 1 and *Fig. 1* explain the variation in health pattern of the rural people at age and sex level. Variation in health of the infants shows that the percentage of both male and female children is highest in average health category that is followed by good, very good, poor and very poor in descending order in male category and by good, very poor, poor and very good in female category. Variation in health of the school going age group children shows that percentage of male children is highest in good health category, whereas the percentage of female children is highest in average health category. Next highest percentage of male children is in average health followed by poor, very good and very poor in descending order whereas in female category the next higher percentage is in good health followed by health levels similar to male children.

When we look into the health quality of infants and school going age group children we find that the health of the latter group is relatively better indicated by higher percentage in good health. Variation in health among the younger working age group (15–34 year) persons shows that the percentage to total male or female population of this age group is highest in good health that is followed by the percentage of average, poor, very good and very poor health. Older working age group (35–59 year) persons show their highest percentage in average health, higher in good, high in poor, low in very poor and very low in very good health. Similarly, aged persons of 60 and

Table 1. Health status of surveyed individuals by age groups and sex, Mangolkote sample, 1998

Health status	% range of composite scores	Age groups					
		0-4		5-14		15-34	
		M	F	M	F	M	F
Very good	80<	6	2	10	3	12	7
		10.17	3.85	8.77	2.38	3.29	2.14
Good	60-80	21	13	46	52	175	150
		35.59	25.00	40.35	41.27	47.95	45.87
Average	40-60	23	28	41	58	139	144
		38.98	53.85	35.96	46.03	38.08	44.03
Poor	20-40	6	4	14	11	36	24
		10.17	7.69	12.28	8.73	9.86	7.34
Very poor	<20	3	5	3	2	3	2
		5.08	9.61	2.63	1.59	0.82	0.61
Grand total		59	52	114	126	365	327
		(6.43)	(6.60)	(12.43)	(15.99)	(39.8)	(41.50)

Table 1. (Continued)

Health status	% range of composite scores	Age groups				Total	
		35-59		60 +		M	F
		M	F	M	F		
Very good	80<	9	2	-	-	37	14
		2.77	0.79	-	-	(4.03)	(1.78)
Good	60-80	102	69	13	2	357	286
		31.38	27.49	24.07	6.25	(38.93)	(36.29)
Average	40-60	152	130	18	5	373	365
		46.77	51.59	33.33	15.82	(40.69)	(46.32)
Poor	20-40	52	41	7	9	115	89
		16.00	16.33	12.96	28.12	(12.54)	(11.29)
Very poor	<20	10	9	16	16	35	34
		3.07	3.58	29.63	50.00	(3.82)	(4.31)
Grand total		325	251	54	32	917	788
		(35.44)	(31.85)	(5.88)	(4.06)	(100.00)	(100.00)

Source: Author's Field Survey, 1998. Bracketed lower figures are the percentages to grand total males and females. Unbracketed lower figures are the percentages to total males or females or respective age groups

above show more variation in their health status as the percentage of males is higher in average and very poor health categories and lower in good and poor health categories, whereas percentage of females decreases from very poor to good health category. Such variation indicates that the health of aged males is normally better than that of its female counterpart.

After looking into health categorywise variation we find that in very good health percentage of lower age group persons particularly below 15 years of age is generally higher and percentage of middle and higher age group persons is lower. Similarly in good health category the percentage of young people of (15-34 year) age group is higher which is followed by children, older persons and old persons in descending order. In average and poor health categories percentage of older persons

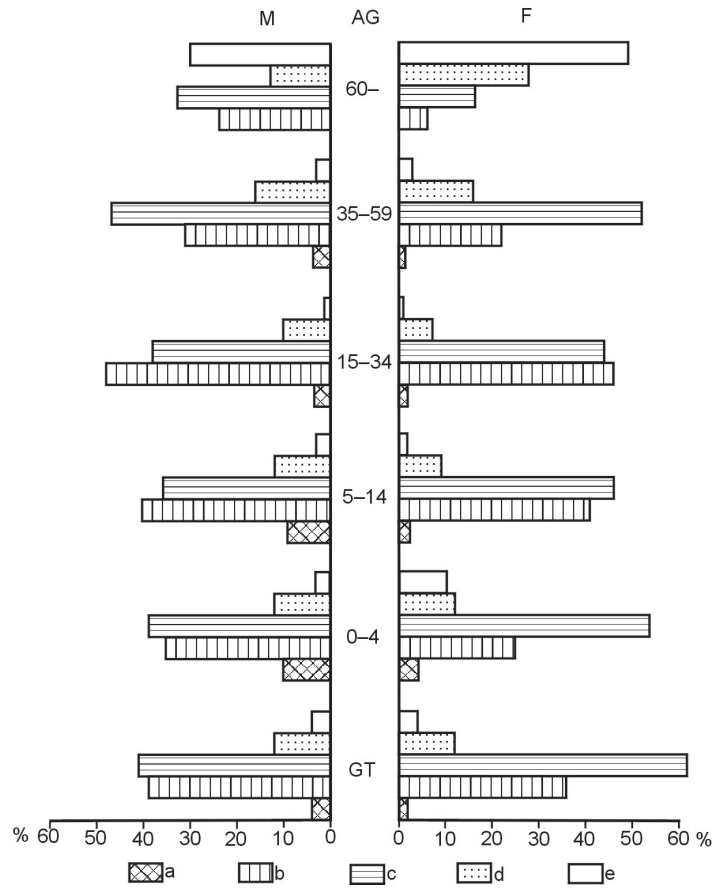


Fig. 1. Health status of surveyed individuals by age groups (AG, in years) and sex, 1998 (Mangolkote Block). – Levels of health in percent: a = very good; b = good; c = average; d = poor; e = very poor; GT = grand total; M = male; F = female

is generally highest and in very poor and poor categories the percentage of old person is higher. As a whole it can be said that generally health of the children and young persons is better than that of older and old persons. Finally, we find that the majority or rural people possess average health followed by good, poor, very poor and very good.

Health pattern by social groups

Social groups and health are the two important aspects of population. Social group (the results of socio-economic conditions) is considered as a social force in

health because each social group has different social pathology in affecting health of its people.

Table 2 and Fig. 2 deal with the variation in health pattern of the rural people across different social groups. From the table and figure we find that the percentage of persons having very good health decreases from Muslim to O.B.C., higher caste and finally to scheduled caste categories. Percentage of persons having good health also shows a decreasing trend from Muslim category to higher caste, O.B.C., scheduled caste and scheduled tribe. Variation in average health of the rural people is remarkable as the percentage of persons having average health is highest in scheduled caste that is followed by the percentage of scheduled tribe, scheduled caste and O.B.C. (in descending order) and lower among the persons of Muslim and higher caste categories.

Table 2. Health status of the surveyed individuals by social groups, Mangolkote sample, 1998.

Health status	% range of composite scores	Social groups					
		H.C.		Muslim		O.B.C.	
		M	F	M	F	M	F
Very good	80<	15	3	12	4	10	6
		4.95	1.13	11.00	4.20	6.02	4.80
Good	60-80	168	135	64	60	57	48
		55.45	50.75	58.71	64.51	34.34	38.40
Average	40-60	103	120	25	22	72	54
		33.99	45.11	22.93	23.65	43.37	43.20
Poor	20-40	15	7	7	6	24	12
		4.95	2.63	6.42	6.45	14.46	9.60
Very poor	<20	2	1	1	1	3	5
		0.66	0.37	0.91	1.07	1.80	4.00
Grand total		303	266	109	93	166	125
		(33.04)	(33.76)	(11.89)	(11.80)	(18.10)	(15.86)

Table 2. (Continued)

Health status	% range of composite scores	Social groups				Total	
		S.C.		S.T.		M	F
		M	F	M	F		
Very good	80<	-	1	-	-	37	14
		-	0.59	-	-	(4.03)	(1.77)
Good	60-80	37	25	31	18	357	286
		19.68	14.88	20.53	13.23	(38.93)	(36.29)
Average	40-60	104	101	69	68	373	365
		55.32	60.12	45.69	50.00	(40.68)	(46.32)
Poor	20-40	35	37	34	27	115	89
		18.62	22.02	22.52	19.85	(12.54)	(11.29)
Very poor	<20	12	4	17	23	35	34
		6.38	2.38	11.25	16.91	(3.81)	(4.31)
Grand total		188	168	151	136	917	788
		(20.50)	(21.32)	(16.47)	(17.25)	(100.00)	(100.00)

Source: See Table 1.

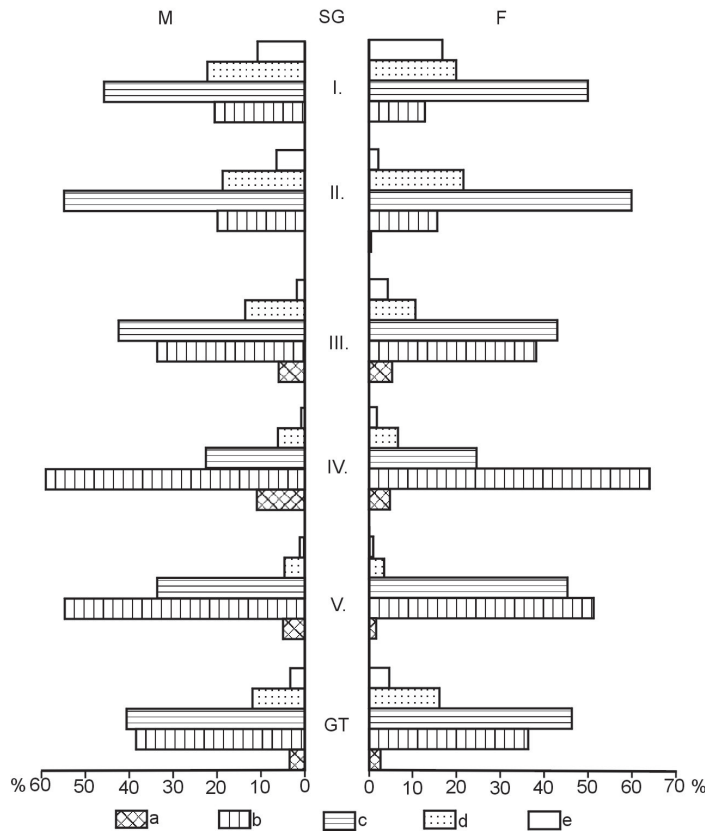


Fig. 2. Health status of surveyed individuals by social groups (SG), 1998 (Mangolkote Block).
 – I = schedule tribe; II = schedule caste; III = other backward classes; IV = muslims; V = higher caste; a–e, M, F and GT = for explanation see Fig. 1

In fine, we can say that health of the Muslims, higher caste and O.B.C. is comparatively better than that of the scheduled caste and scheduled tribe persons. Such variation in health status may be because of better food and nutrition, education, health awareness and better life style of higher caste, O.B.C. and Muslims and lack of proper food and nutrition's, education, health awareness as well as poor life style, food and drink habits etc. Finally grand total variations in health status is the same as in the case of age and sex groups.

Health pattern by educational achievements

Education and health are very important characteristic features of population. Here, education acts as an important factor in determining health level. Education plays

a very crucial role in health. According to African Development Report (1998) education is considered as an important factor which effects the health and life expectancy of individuals because it equips them with the knowledge and the means to prevent, control and detect diseases. *Table 3* and *Fig. 3* analyse the variation in health pattern across different educational categories. It is clear from the table and figure that the percentage of illiterate, primary, and junior secondary females and under graduate males is higher in average health whereas the percentage of good health is higher among junior secondary males, secondary and higher secondary males and females and among post graduate males. Secondly, percentage of those having professional/technical education and post graduate females is highest in very good health. In poor health category the percentage of under graduate females is highest which may be because of certain reasons relating to disease.

Table 3. Health status of surveyed individuals by educational achievement, Mangolkote sample, 1998.

Health status	% range of composite scores	Levels of education							
		Illiterate		Primary		Jr. Sec.		Sec + H.S.	
		M	F	M	F	M	F	M	F
Very good	80<	1	1	1	1	2	3	5	2
		0.60	0.48	0.67	0.46	1.01	1.92	2.53	1.23
Good	60-80	38	42	46	87	102	67	95	78
		22.62	20.19	30.67	39.91	51.52	42.95	47.98	47.85
Average	40-60	68	105	67	108	73	71	81	72
		40.47	50.48	44.67	49.54	36.87	45.51	40.91	44.17
Poor	20-40	42	37	28	16	16	11	15	10
		25.00	17.79	18.66	7.34	8.02	7.05	7.57	6.14
Very poor	<20	19	23	8	6	5	4	2	1
		11.31	11.06	5.33	2.75	2.52	2.57	1.01	0.61
Grand total		168	208	150	218	198	156	198	163
		(18.32)	(26.40)	(16.36)	(27.66)	(21.59)	(19.80)	(21.59)	(20.69)

Table 3. (Continued)

Health status	% range of composite scores	Levels of education						Total	
		U.G		P.G		Prof./Tech.		M	F
		M	F	M	F	M	F		
Very good	80<	15	3	9	3	4	1	37	14
		9.49	10.34	24.32	27.27	50.00	33.33	(403)	(178)
Good	60-80	57	8	16	3	3	1	357	286
		36.08	27.59	43.24	27.27	37.50	33.33	(3893)	(3630)
Average	40-60	75	5	8	3	1	1	373	365
		47.47	17.24	21.62	27.27	12.50	33.33	(4068)	(4632)
Poor	20-40	10	13	4	2	-	-	115	89
		6.33	44.83	10.82	18.18	-	-	(1254)	(1129)
Very poor	<20	1	-	-	-	8	3	35	34
		0.63	29	37	11	(0.88)	(0.38)	(382)	(431)
Grand total		158	(3.68)	(4.03)	(1.40)	-	-	917	788
		(17.23)	-	-	-	-	-	(10000)	(10000)

Source: See *Table 1*.

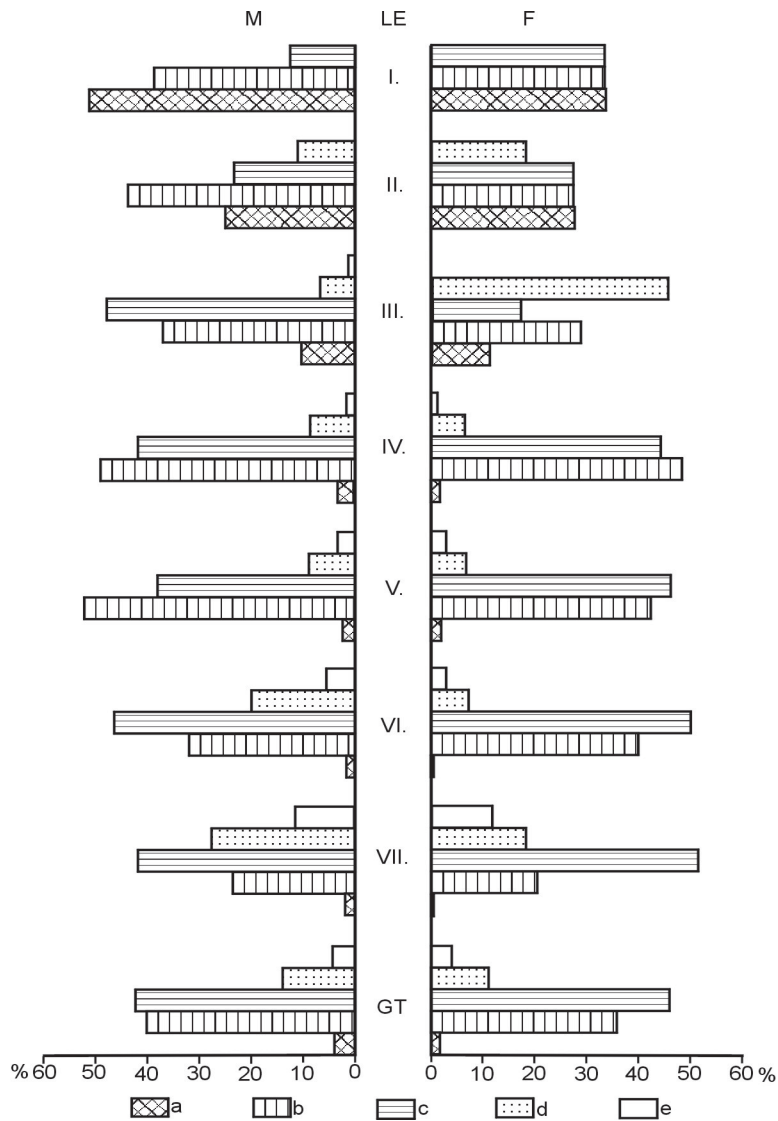


Fig. 3. Health status of surveyed individuals by sex and level of education (LE) categories, 1998 (Mangolkote Block). – I = prof/tech; II = postgraduate; III = undergraduate; IV = sec-8 and h-sec; V = junior-secondary; VI = primary; VII = illiterate; a–e, M, F and GT = for explanation see Fig. 1

After looking into the over all picture we find that the percentage of persons having very good health sharply decreases from higher educational levels to lower educational levels. Similarly, the percentage of persons possessing poor and very poor health health generally decreases from lower educational level to higher educational levels leaving aside some exceptional cases in under graduate and post graduate edu-

cational categories. Percentage of good health is generally found higher among the persons of medium educational levels. Whereas the percentage of average health is generally found higher towards lower educational levels as well as towards medium levels of education. The above variation thus may be taken into consideration as the result of variation in educational achievements.

Table 4. Health status of surveyed individuals engaged in different occupations, Mangolkote sample, 1998.

Health status and % range of composite scores	Economic functions									
	Primary								Secondary	
	Cultivator		Agril. Labour		L.S. Farming		Mining quarry		Industrial activities	
	M	F	M	F	M	F	M	F	F	M
Very good	4	1	2	1	–	–	1	–	2	–
80<	2.21	13.51	1.23	0.77	–	–	10.00	–	16.67	–
Good	54	25	43	42	8	4	5	–	7	–
60–80	29.03	33.78	26.54	32.31	25.81	50.00	50.00	–	58.33	–
Average	68	33	95	53	16	3	4	–	3	–
40–60	37.57	44.59	58.64	40.77	51.61	37.50	40.00	–	25.00	–
Poor	48	12	11	18	6	1	–	–	–	–
20–40	26.52	16.22	6.79	13.85	19.35	12.50	–	–	–	–
Very poor	7	3	11	16	1	–	–	–	–	–
<20	3.88	2.70	6.79	12.31	3.22	–	–	–	–	–
Grand total	181	74	162	130	31	8	10	–	12	–
	(32.61)	(30.45)	(2919)	(53.49)	(5.58)	(3.29)	(1.80)	–	(2.16)	–

Table 4. (Continued)

Health status and % range of composite scores	Economic functions								Total	
	Secondary		Tertiary							
	Const. work		Trans. Comm.		Comm. Activities		Others			
	M	F	M	F	M	F	M	F	M	F
Very good	1	–	–	–	7	–	6	2	23	4
80<	12.50	–	–	–	10.00	–	9.52	8.69	(4.14)	(1.65)
Good	3	–	9	–	36	–	34	10	199	83
60–80	37.50	–	50.00	–	51.43	–	53.97	43.48	(35.85)	(34.16)
Average	4	3	2	–	25	2	15	7	232	99
40–60	50.00	100.00	11.11	–	35.71	40.00	23.81	30.43	(41.80)	(40.74)
Poor	–	–	5	–	1	–	5	2	76	36
20–40	–	–	27.78	–	1.43	3	7.94	8.69	(13.69)	(14.81)
Very poor	–	–	2	–	1	60.00	3	2	25	21
<20	–	–	11.11	–	1.43	–	4.76	8.69	(4.50)	(8.64)
Grand total	8	3	18	–	70	5	63	23	555	243
	(1.44)	(1.23)	(11.61)	–	(21.61)	(2.05)	(11.35)	(9.46)	(100.00)	(100.00)

Source: See Table 1.

Health pattern by different occupations

Health and occupation are the two important qualitative characteristics of population. Different occupations are found influencing health differently. Different

occupation has different problems which in turn affects adversely the health of working persons. MEHTA, R. (1998) has intensively worked on occupational health in which he has emphasised on environmental conditions such as work environment, social environment, physical environment, undue physical and mental stress at work place in influencing health of the workers. BETTOLO, M. and BATTISTA, G. (1996) also discussed about occupational health of workers and pointed out that different types of occupational diseases adversely effect the health of working persons.

Table 4 and Fig. 4 clearly exhibit the variation in health of the rural people across different economic functions. When we look into the variation of health pat-

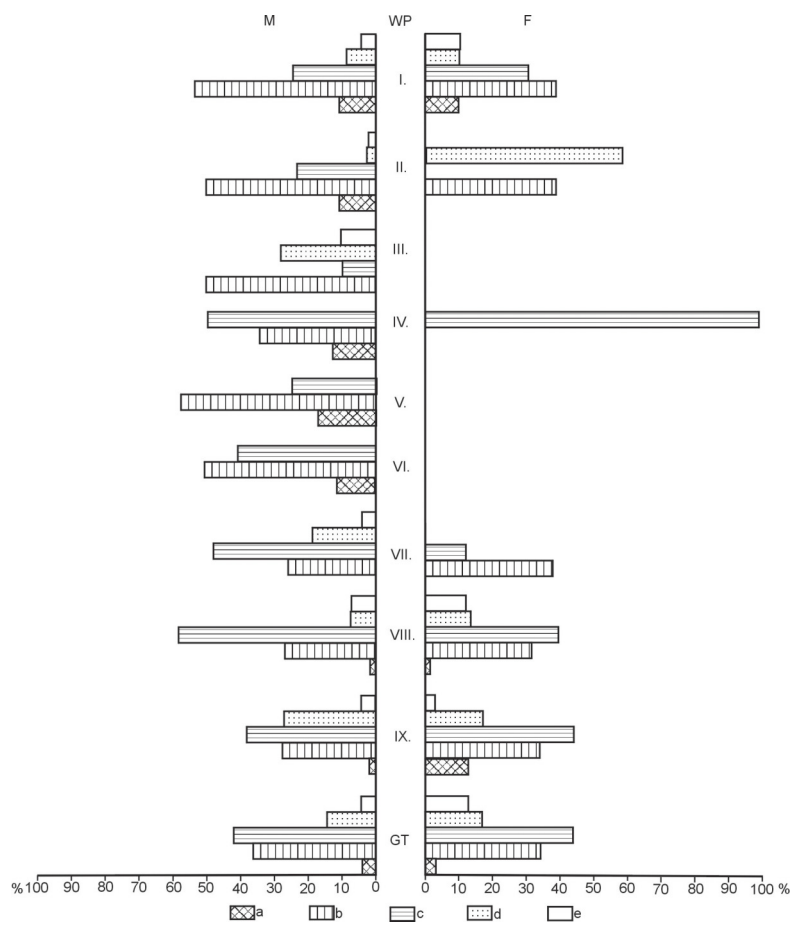


Fig. 4. Health status of surveyed individual working persons (WP) engaged in different occupations, 1998 (Mangolkote Block). – I = services; II = commercial; III = transport and communication; IV = construction; V = industries; VI = mining and quarrying; VII = livestock farmers; VIII = agrarians; IX = cultivators; a–e, M, F and GT = for explanation see Fig. 1

tern, we find that in very good health the percentage of females engaged in cultivation as cultivators, males engaged in industrial and construction works is relatively higher. In good health category the percentage of persons engaged in commercial and other activities relatively higher and those belonging to this health category and are engaged particularly in primary economic functions show relatively lower percentage.

Similarly, in average health category the percentage is found comparatively higher among the persons of primary economic functions. In poor and very poor health categories the percentage is fairly higher among the persons found engaged as cultivators, agricultural labourers and livestock farmers.

As a whole we can say that in general health of the persons engaged in secondary and tertiary economic functions is generally better and the health of those engaged in primary activities is relatively poor as indicated by higher percentages in average, poor and in very poor categories.

Such variation may be due to better socio-economic conditions of secondary and tertiary workers than that of primary workers. This may also be because of comparatively better education and better health accessibility for those found engaged in the activities other than agricultural.

Findings and suggestions

Findings of the study show that health varies among the persons of different age groups. Children and young persons show comparatively better health than that of older and aged persons.

Social groupwise variation shows that health of higher caste persons and Muslims are relatively better than that of other backward class, scheduled caste and scheduled tribe persons. It has also been found that better educated persons possess generally better health.

Occupationwise variation also shows that health of the secondary and tertiary workers is generally better than that of primary workers.

Thus, it is suggested that essential medical and health facilities of different types at different levels in combination with essential educational facilities, food and nutrition, etc. must be made available in all the villages of the Block and while distributing or allocating such infrastructure special emphasis should be given on females of different age groups, on older and old people, S.C., S.T. and other backward castes in the Block.

The children below 15 years should be taken special care of their physical and mental health with the provision of compulsory education and health. Once the above measures are adopted and properly utilised, then the male–female, age groupwise, social groupwise and villagewise gaps in health will considerably be reduced. These efforts will enable the rural people to live a life of peace and comfort.

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