

HEALTH KNOWLEDGE INFORMATION AND HEALTH CARE EXPENDITURE 4

4.0: Introduction

This chapter explores the impact of migrants' health knowledge and information on health seeking behaviour and impact of remittances on health care expenditure at origin. The health knowledge, information, and changing health expenditure pattern bring out the improvement of the health status of the left behind migrant household members over non-migrant counterparts. Many past studies proved those families with members who have moved elsewhere in the country or abroad tend to experience direct gains in terms of economic, social and health aspects (HDR, 2009). Human mobility has multiple impacts both on origin and destination and these impacts critically shape its overall effects. Nevertheless, like other migrants, skilled migrants often bring benefits to their origin, through remittances and the development of networks. The process of migration not only changes the economic scenario of sending regions but also on health status through transmitting health knowledge and health information. For instances, migrants from remote and tribal area transmit the low fertility norms through migration process and knowledge and awareness on contraceptive use norms (Maharatna,2003; Bhatia and Sabagh, 1980; Zacharia,1964; Hema Kumari,1998). In total health information, knowledge, and health care spending among migrant families make-out distinguish in the health status over non-migrant families.

In view of the importance of the health knowledge, information and health care expenditure to make distinction of health status and health outcomes, study has plan out to systematize the present chapter broadly in three parts. In part one, the study discusses the level and difference of health knowledge and health information, women empowerment and decision-making and access and exposure to various institutions by household migration status. The impact of direct and indirect health care expenditure on health outcomes discussed in part two. More details we discussed the impact of health

knowledge, information and pattern of health care expenditure (both direct and indirect) on health out-comes among migrant and non-migrant households. The conclusion and summary of findings this chapter is discussed in Part Three.

4.1: Level of health knowledge and awareness

As we mentioned above the level of health knowledge and awareness and its impact on child health has been discussed in this part.

4.1.1: Health Knowledge and awareness by household status

A small share of the total population of an origin place will move but the impact is not restricted to mover or with their family members only. The norms and gains by migrants through migration process spread across the origin population irrespective of the social and economic strata. Many studies proved the knowledge that disseminated by migrants are acting as strong and powerful forces to change the behaviour and practices at origin. It also enhances the level of awareness and access to various aspects and eventually impact on various outcomes in different indicators viz., social, economic and health concern. Therefore, we analysed the data that included health knowledge and health information and access to institution and women empowerment indicators in this part to flash out the impact on health status of left behinds at origin.

Table 4.1.1: Percentage of household having toilet facility by migration status

Particulars	Migrants	Non-migrants
Yes	74.0(222)	59.3(178)
No	26.0(78)	40.7(122)
Number of sample	300	300

Source: computed using primary data

Level of health knowledge and awareness are capitalised in the study population probing simple questions on household members about their personal hygienic. These questions are like using toilet and toilet soap while using toilet, treat drinking water before consuming etc. More importantly, it has been observed that simple maintain these personal hygienic in household level can prevent on exposures to various communicable diseases. The percent of household having toilet facility by household migration status is presented in Table 4.1.1. It is found that 74 % of the households are belonging to

migrants' category having any type toilet facility in comparison to 59.3% of households belonging to non-migrant household category. Assuming other economic factor remaining same the study may conclude that migrant households have more health knowledge and health information as a result the awareness level is also high hence they adhere to maintain the personal hygienic over non-migrant households. It may be further, argued that migrant living in the urban places make exposure to urban set-up and would have knowledge on pros and cons of maintaining personal hygienic. It also is expecting that the same knowledge and awareness would be transferred by migrants to their families at origin and that make the left behinds differential in practice than non-migrants.

Table 4.1.2: Percentage of household treating drinking water by migration status

Indicators	Migrants	Non-migrants
Yes	22.7(68)	9.3(28)
No	77.3(232)	90.7(272)
Number of sample	300	300
Mann-Whitney 'U' test 0.00		

Source: computed using primary data

Many past studies exhibit, treating drinking water save thousands of lives from communicable diseases such as diarrhoea and pneumonia that are very common among the children and the incidence rate is more in this age cohort. This also will comprehend us the household level of health awareness. Realising the importance the study probed the household members, are you treat drinking water? If household responses yes, then further asked what type of method/s, you are using for treat the drinking water. It is found that more than two (22.7%) in every ten migrant households treating the drinking water before consuming as compared to less than one (9.3%) in every ten non-migrant households. The difference between migrant and non-migrant is statistically significant at 0.001% level of significance. This may be interpreted that migrant households are more health conscious than non-migrant households. The result depicts in Table 4.1.2.

Table 4.1.3: Percentage of household have toilet, using toilet soaps, treating drinking water and had diarrhoea by migration status

Indicators	Migrants	Non-migrants	Total sample
Household having toilet facility	74.0(222)	59.3(178)	400
Household using toilet soap	64.4(143)	44.9(80)	223
Have health insurance	72.3(82)	19.0(57)	149
Had diarrhoea using toilet	10.5 (15)	52.5 (42)	57
Had diarrhoea treating the drinking water	26.7 (16)	31.4 (27)	43

Source: computed using primary data

As we have discussed above maintaining personal hygienic can avoid a number of communicable diseases, which are very common among children. Therefore, the study analyzed the percent of household had diarrhoea the last two weeks prior to the survey even though using toilet and treating drinking water. That will enable us to understand the level of health knowledge and information household have. The results are depicted in Table 4.1.2. It is found that more than one out (10.5%) of ten people had diarrhoea in migrant households in contrast to more than one (52.5%) out of two non-migrant households had diarrhoea in the last two weeks prior to the survey even through using toilet. One out of four (26.7 %) of migrant members had diarrhoea using treated drinking water as compared to one out of three (31.4 %) of non-migrant households. Therefore, it is noteworthy to mention here that migrant households are low incidence of disease burden in contrast to non-migrant households. Probable explanation would be better health knowledge and information may translate to good practices resultant positive outcomes over non-migrant counterparts. The study also found that all the three indicators in migrant families are significantly different over non-migrant families. The empirical findings shows that, better sanitary practices enhance better health status and that perpetuate to improve on health outcomes of left behinds in general and child health in particular.

Table 4.1.4: Knowledge and awareness about HIV/AIDS transmission by household migration status in percentage

Indicators	Mother to her unborn children		An HIV + ^{ve} mother to her unborn children		Injecting drugs with shared syringes		Unscreened blood transfusion	
	M	NM	M	NM	M	NM	M	NM
No	81.7	30.0	45.3	26.3	19.7	16.0	24.7	19.7
Yes	18.3	70.0	54.7	73.7	80.7	84.0	75.3	80.7
Number of sample	300	300	300	300	300	300	300	300
Mann-Whitney 'U' Test 0.00			0.21		0.00		0.00	

Source: computed using primary data; M-Migrant, NM-Non-migrant

The district Ganjam (study district) is high prevalence district i.e., 'A' category of HIV/AIDS and people living with HIV/AIDS (PLWHA) mapped by the National Aids Control Society (NACO) through Odisha State Aids Control Society (OSACS). Often health planner and practitioner argue the process of migration is one of the major reasons for the highest hub of the HIV/AIDS epidemic in Ganjam district. Therefore, the study probed some questions pertaining to the knowledge, awareness and transmission of diseases and about prevention of it. It will enable us to understand and distinguish the level of health knowledge and information among study population. Based on their information, knowledge and experiences respondents' respond in a binary process i.e., 'Yes' or 'No' forms. It is found that 18.3 % of migrant families said transmission of HIV/AIDS through mother to her unborn children in comparison to 70 % of non-migrant families. Forty-five percent of migrant households opine that HIV/AIDS can spread to unborn children through positive mothers against 26.3% of non-migrant households. Moreover, 19.7% and 24.7% reported the HIV/AIDS transmit through using shared syringe for injecting drugs and unscreened bolds contrary to 16 % and 19.7% of non-migrant households respectively.

Table 4.1.5: Myth and misconception about HIV/AIDS transmission by household migration status in percentage

Indicators	Using public toilets		Being bitten by mosquitoes		Sharing razors		can people take action to prevent spread of HIV/AIDS	
	M	NM	M	NM	M	NM	M	NM
No	63.3	34.0	43.3	19.7	26.0	19.7	62.7	46.3
Yes	36.7	66.0	56.7	80.3	74.0	80.3	37.3	53.7
Number of sample	300	300	300	300	300	300	300	300
Mann-Whitney 'U' Test	0.00		0.00		0.00		0.00	

Source: computed using primary data; M-Migrant, NM-Non-migrant

More on the health knowledge and awareness about HIV/AIDSs, the study asked some more questions about myth and misconception of HIV/AIDS transmission and perception on prevention. The myth and misconception is very common and often found in every population, therefore, the study probed some myth and misconception questions and that shows the Table 4.1.5. It was found that around 37 % of migrant families believe there is a chance of transmission of HIV using public toilets in contrast to 66% of non-migrant households. Further, 56.7% of migrant household believes HIV/AIDS can spread being bitten by mosquitoes in comparison to 80.3% of non-migrant households. Moreover, another one-fourth (26%) of migrant households believes spread of epidemic through sharing razors in comparison to one-fifth (19.7%) of non-migrant counterparts. The study also administrated one question among study population like whether people take action to prevent spread of HIV/AIDS? It is found that 37.3 % of migrant household spoke out 'Yes' this can be prevented in comparison to 53.7% of non-migrant households. The finding of the study reveals that the myth and mis-conception about HIV/AIDS having same level in both migrant and non-migrant households. However, migrant households

are little better than non-migrant counterparts. Moreover, all the differences between two group's i.e., migrant and non-migrant households are statistically significant in less than one percent level of significance.

More or less finding of the study indicates that migrant households have better health knowledge and awareness on HIV/AIDS as compared to non-migrant counterparts. The study also computed the percent of household has gone up or down the knowledge and awareness on HIV/AIDs transmission after migration. Dearth in longitudinal information at sub-district level deters us to comprehend and compare the real picture of study area. However, attempt has been made to estimate and to comprehend in this regard. Overall, in rural area of Ganjam district it has been observed that the knowledge on HIV/AIDS among ever-married women has increased from 81.5% in 2007-09 to 50.6% in 2002-04. In total, by analysing household's migration status in our sample population, it is found that migrant households have 8.1% more knowledge and awareness about HIV/AIDS than non-migrant households (87.1% migrant households and 79% of non-migrant households). The empirical finding may not indicate the information is spreading through migration process but it is inevitable to say that migration is the main sources of transformation of knowledge and awareness. However, it is praiseworthy to mention here that the health knowledge and health information concerning HIV/ AIDS are coming through migration process. To support our quantitative finding we analysed the qualitative information. *One of the qualitative finding reveals that "In our village lot of people aware about on health issues particularly about knowledge on HIV/AIDS. Because majority of them are, migrate to Surat and Mumbai city. They are exposed on various knowledge and information on HIV/AIDS at destination and sharing this information in our local while returning back home. As a result the level of awareness and Knowledge on HIV/AIDS is almost uniform in our village".*

Table 4.1.6: Knowledge and awareness about women’s health issues by migration status

Particulars	A pregnant woman should take nutritional food		A pregnant woman should not work hard		A woman should deliver a baby in the institution or in the presence of trained birth attend		Birth gap between two births should be five or more years	
	M	NM	M	NM	M	NM	M	NM
Strongly Agree	34.7	26.0	61.0	45.3	34.7	23.0	67.3	65.0
Definitely	51.3	52.0	12.7	14.3	52.3	56.0	10.7	7.7
Partially	9.0	14.0	18.0	13.7	6.0	11.3	11.7	14.3
Partially Agree	2.0	4.3	7.0	15.7	3.3	5.3	6.7	9.0
Disagree	3.0	11.0	1.3	11.0	3.7	4.3	3.7	4.0
Number of sample	300	300	300	300	300	300	300	300
Mann Whitney ‘U’ test	0.00		0.00		0.00		0.35	

Source: computed using primary data; M-Migrant, NM-Non-migrant

The level of health knowledge and health information on women’s health issues is analysed and the result is depicts in Table 4.1.6. Around, thirty-five percent of migrant households believe pregnant women should in-take nutritional food as compared to 26 % of non-migrant households. Further, 61% of migrant household believes pregnant women should not work hard in comparison to 45.3% of non-migrant households. More than one-third (34.7%) of migrant households strongly agree women should deliver a baby at institution or presence of trained birth attendance compared to 23 % of non-migrant households. Moreover, almost equal percentage i.e., more than two third (67.3%) of migrant families and 65 % of non-migrant families believe birth gap between two babies should be five or more than five years.

Table 4.1.7: Knowledge and awareness on contraceptive use and perception on its side effects by household migration status

Particulars	A couple should use any contraceptive		Side effect of contraceptive use		One should take care of child and old age person in Household		A girl should not marry before age 20		One should consult a health personnel for seeking treatment of any health problems	
	M	NM	M	NM	M	NM	M	NM	M	NM
Strongly Agree	64.0	52.7	60.0	50.7	26.3	18.7	26.7	17.3	30.0	18.3
Definitely	16.7	26.3	6.7	6.3	35.0	13.7	53.7	54.7	51.7	50.0
Partially	9.7	12.0	7.3	10.3	32.3	53.7	12.7	12.7	12.0	8.0
Partially Agree	7.7	4.3	18.0	20.3	3.7	4.0	5.7	8.3	3.7	5.7
Disagree	2.0	4.7	8.0	12.3	2.7	10.0	1.3	7.0	2.7	18.0
Number of sample	300		300		300		300		300	
Mann-Whitney U Test	0.00		0.01		0.09		0.05			

Source: computed using primary data; M-Migrant, NM-Non-migrant

On women's health issues the study further, test the knowledge on contraceptive use and its side effect. The result of the study is shown in Table 4.1.7. Sixty-four percent of the migrant household firmly believes that a couple should use any method of contraceptive to avoid un-wanted pregnancy in contrast to 52.7% of non-migrant households. Similarly, 60% of migrant household believes the side effect in uses of contraceptive in contrast to around 51 % of non-migrant households. Further, the study probed some perception and attitude related on health care seeking issues and to take care of vulnerable people in household i.e., old age and children. It is found that 26 % of migrant households firmly believe to take care of old person and children in the household compared to 18 % of

non-migrant households. Another 30% of migrant households believe consultation of health personnel for any health problems as compared to 18% of non-migrant households. More on, one out of four (26.7%) in migrant families believe girl should not marry before age 20 years as compared to one out of five (17.3%) in non-migrant households.

Table 4.1.8: Knowledge and awareness about general health and health status through preventive measure by household migration status

Particulars	Children should immunized		Drinking water should treated to prevent from various diseases		Maintain personal hygienic to prevent the communicable diseases		One should use mosquito net to prevent from malaria	
	M	NM	M	M	M	NM	M	NM
Strongly Agree	25.3	18.3	42.3	73.0	73.0	33.7	73.0	62.0
Definitely	58.3	58.3	41.0	12.3	12.3	12.0	12.3	16.3
Partially	11.3	13.7	9.3	6.7	6.7	39.0	6.7	12.0
Partially Agree	3.7	7.3	5.3	6.7	6.3	9.7	6.0	7.3
Disagree	1.3	2.0	2.0	4.0	4.7	5.7	2.0	2.3
Number of sample	300	300	300	300	300	300	300	300
Mann-Whitney 'U' test	0.00		0.00		0.00		0.00	

Source: computed using primary data; M-Migrant, NM-Non-migrant

To aware about household's level of knowledge and awareness to prevent various diseases the study administrated some questions among study population and that depicts in Table 4.1.8. Approximately, three-fourth (73%) of migrant family firmly believes using mosquito net can prevent malaria in comparison to two-third (62%) of non-migrant households. Seventy three percent and 37.3 percent of migrant and non-migrant households respectively believes maintaining personal hygienic can prevent communicable diseases. Another 42.3% and 72% of migrant and non-migrant households believe treating drinking water can prevent from non-communicable diseases. Further, the study probed into the level of knowledge on child health issues like to ask the question on children should immunized to prevent from diseases. Around twenty-six

(25.3%) percent of migrant and close to a quintile (18.3 %) of non-migrant households in favour of child immunization. With this, it is concluded that the knowledge and awareness level of migrant households is better over non-migrant households because all the differences are statistically significant at more than 99 percent confidence level.

4.1.2: Access to the media and institution

Access to media and institutions are reflecting the level of awareness, exposure and women empowerment of the household. That level of awareness and empowerment bringing out many positive outcomes of health variables. In this section, the study analyzed and presented some indicators pertaining to awareness, exposure and women empowerment.

Table 4.1.2.1: Percentage of household has access to media and institution by migration status

Indicators	Migrant	Non-migrant	Total sample
News paper	22.0(66)	26.0(78)	144
Radio	21.7(65)	14.7(44)	109
Television	75.7(227)	72.7(218)	445
Cinema in theatre	4.0(12)	4.0(12)	24
Have a saving account in financial institution	88.0(264)	80.0 (240)	504

Source: computed using primary data

Many past studies probed that migration enhances the level of exposure to media and institution of left behind family members, the enhanced level of exposure and awareness translate into practices in terms of social, economic and health issues. Further, exposure to media and institutions develop the level of knowledge and awareness of the household; not only in health education domains but also in various facets. The level of exposure and access to the institution results are explained in Table 4.1.5. It is found that 22 % of migrant households are reading newspaper, 21.7% are listening to radio, 75.7% are watching television another 4.0% are watching the cinema in theatre and 88% of migrant households have saving account in any financial institutions. Similarly, 26 % of non-

migrant households are reading newspaper, 14.7 % are listening radio, 72.7% are watching television, 4% are watching cinema in theatre and 80 % of migrant households have saving account in any financial institutions. Therefore, it is found that non-migrant households have low exposure to media and institution as compared to migrant households especially; exposure on newspaper, radio, and television.

Table 4.1.2.2: Household member often access to different sources of media in percent

Particulars	Migrants				Non migrants			
	News paper	Radio	Televisio n	Cinem a	News paper	Radio	Television	Cinem a
Almost every day	19.7(13)	47.7(31)	82.4(187)	25.0(3)	26.9(21)	50.0(22)	88.5(193)	16.7(2)
At least once a week	10.6(7)	27.7(18)	7.0(16)	41.7(5)	11.5(9)	25.0(11)	6.4(14)	50.0(6)
At least once a fortnight	40.9(27)	18.5(12)	5.3(12)	0.0(0)	35.9(28)	20.5(9)	1.8(4)	0.0(0)
At least once a month	18.2(12)	1.5(1)	1.3(3)	8.3(1)	21.8(17)	0.0(0)	0.0(0)	0.0(0)
More than a month	10.6(7)	4.6(3)	4.0(9)	25.0(3)	3.8(3)	4.5(2)	3.2(7)	33.3(4)
Number of sample	66	65	227	12	78	44	218	12

Source: computed using primary data

Frequent exposure to the media of household members is considered as a proxy of awareness than occasionally exposure to media. In order to inquiry it, study probed the respondent how often do they and their family members are exposed to different sources of media and the result reveals in Table 4.1.2.2. It is found that around nineteen percent of migrant households are reading newspaper, 47.7 % are listening to radio, 82.4 % are

watching television almost every day in contrast to, around 26 % of non-migrant households are reading newspaper; around 50 % are listening radio, and 88 % are watching television almost every day.

Table 4.1.2.3: Percentage of household have different types of saving accounts

Sources	Migrant	Non migrant	Total (N)
Bank	52.0(257)	51.3(232)	489
S.H.G	14.8(73)	10.8(49)	122
Post office	31.8(157)	36.9(167)	324
Cooperative	1.4(7)	0.9(4)	11
N	494	452	946

Source: computed using primary data

Percent of household have different saving and financial accounts shows in Table 4.1.2.3. It is found that almost equal (around 52 %) of migrant and non-migrant households have bank account. Further, S.H.G. account is slightly more among migrant families as compared to the non-migrant counterparts, whereas accounts in post office are more among non-migrant households as compared to migrant households.

Table 4.1.2.4 Sources of loans by migration status

Type of Institutions	Migrants	Non migrants	Total (N)
Bank	39.7(56)	36.7(44)	100
Post office	4.3(6)	0.8(1)	7
Money lenders	22.0(31)	28.3(34)	65
S.H.G	8.5(12)	6.7(8)	20
Friend's/Relatives	24.8(35)	23.3(28)	63
Others	0.7(1)	4.2(5)	6
Number of sample	141	120	261

Source: computed using primary data

Different sources of loan access by household will help us to understand the level of household's exposure to the financial institutions. It is found that around forty percent of migrant households are accessing loan from bank, 24.8 % are from friends and relatives, 22 % are from moneylenders, 8.5 % from S.H.G. groups, 4.3% are from post office and 0.7 % are from any other sources. Similarly, among non-migrant households 36.7 % are from bank, 28.3 % are from moneylenders, 23.3% are from friends and relatives, 4.2%

are from other sources and 0.8 percent is of non-migrant families lending money from informal sources (moneylender and friends/relatives). That is more than half of the non-migrant families access the loan from informal sources hence the study can conclude the level of exposure to institution among non-migrant households is low. The findings presented in Table 4.1.2.5.

Table 4.1.2.5: Percent of household debt by migration status

Any debt/amount	Migrant	Non-migrant	Total
Any debt	26.3(79)	33.0(99)	178
Amount of debt			
Lowest thru 2500	24.1(19)	18.2(18)	20.8(37)
2500-5001	58.2(46)	50.5(50)	53.9(96)
Highest thru 5001	17.7(14)	31.3(31)	25.3(45)
Number of sample	79	99	178

Source: computed using primary data

More understand about the level of exposure to institution and to know the households economic position further the study probed amount of debt taken by the household. It is found that thirty three percent of non-migrant households have any amount of debt compared to 26.0% of migrant households. Of total sample households 99 households belong to non-migrant and 79 households belong to migrant, have taken loan either from any sources. Further, the debt analysis reveals majority (58.2% and 50.5%) of migrant and non-migrant households have taken loan from any source in the range of 2500-5,000 rupees during the time of survey.

4.1.3: Decision-making and women empowerment

Decision-making is a crucial indicator to shape the health status of the household members particularly in the child health case. Therefore, the study included in the analysis the decision-making indicators.

Table 4.1.3.1: Household decision making by migration status

Particulars	Large household	Control over women's own	Control over husband's	Decision on health and education expenditure
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	purchase		income		income		of the children	
	M	NM	M	NM	M	NM	M	NM
Self	38.0	28.0	18.7	11.3	63.1	74.7	26.7	17.0
Only husband	8.0	6.7	26.7	21.3	13.3	9.3	12.7	14.3
Both husband and wife	0.3	1.3	51.3	63.3	18.0	10.7	49.7	45.7
Other family members	0.3	1.7	2.3	1.7	3.3	3.3	9.3	5.7
Do not know/ Cannot say	53.3	62.3	1.3	2.3	2.3	2.0	1.7	17.3
Number of sample	300	300	300	300	300	300	300	300
Mann-Whitney Test	0.01		0.001		0.003		0.000	

Source: computed using primary data; M-Migrant; NM-Non-migrant

Often past studies quote that absence of male members in the household especially head of the household may would have obstacle to women to take major decision in household. Moreover, the long-term absence of male-head of the household restricts the other household members to take major decision particularly women. Hence, in the study, women were asked about some of the decision-making indicators and the result shows the Table 4.1.3.1. It is found that around 38 % of migrant households reported larger household purchase items was decided by women in household as compared to 28 % of non-migrant households. Another, 18.7 % of migrant households reported women are controlling their own income as compared to 11.3% of non-migrant households. While asked about control over their husband's income, majority of migrant women reported they have less control over their husband's income as compared to non-migrant counterparts. With regards to decision on child health care and their educational expenditure more than one fourth (26.7%) of women belongs to migrant households taking decision over their husband or other family members as compared to 17% of non-migrant households women.

Table 4.1.3.2: Women empowerment by migration status

Level of empowerment	Women should respect the honour of husband		Husband should beat wife, if she neglects to take care of the children or older person in family		Husband should beat wife, if she does not cook food properly or not giving respects to her in-laws or argue with him	
	M	NM	M	NM	M	NM
Strongly Agree	20.0	15.0	30.7	20.7	50.3	61.3
Definitely	18.3	12.7	17.7	15.0	15.7	9.0
Average	49.3	67.3	44.3	43.7	8.0	6.7
Partially Agree	6.0	2.7	5.7	7.0	5.0	13.0
Disagree	6.3	2.3	1.7	13.7	21.0	10.0
Number of sample	300	300	300	300	300	300
Mann-Whitney 'U' Test	0.01		0.00		0.003	

Source: computed using primary data; M- Migrant; NM- Non-Migrants

As we mentioned above the level of women empowerment at the household level is strongly associates with the health outcomes specifically in the child health situation. Hence, the study further probed some women empowerment indicators among the study population to comprehend the level of women empowered among migrant and non-migrant households and the result depicts the Table 4.1.3.2. It is found that majority of women are not empowered irrespective of household migration status. However, the finding of the study indicates that women belong to non-migrant households are more chances of less advantage to exercise their power over men in comparison to the migrant counterparts. The absence of male members in the household in migrant family is advantaged for migrant household women. Further, it was probed among the study population, husband should beat the wife if she does not cook food properly or not giving respects to her in-laws or argues with them. It was found that half (50.3%) of the migrant women were agreed to this statement against 61.3% of non-migrant women.

4.2: Pattern and differential of health care expenditure

According to Grossman, health can be viewed as a durable capital stock that produces an output of ‘healthy time’ under certain preconditions. The healthy time of an individual depreciates with increasing age. It is increasing by investment through ‘shadow price’. However, the shadow price is negative associates with education and positive associates with age (M.Grossman, 1972). In view of the Grossman model on ‘demand for health capital’, it is praiseworthy to know the spending habits of the study population on health care. Spending on health care is a strong deterministic factor for health outcomes. Often health economists, planners and programme implementers argue and advocate; increases health care spending may enhance better health outcomes. Hence, the study also conceptualizes and develops in this regards. More on this, many past studies exhibit household improved their health outcomes with increasing household spending on health care. Therefore, it is wise to look into the pattern and differential of health care spending among migrant and non-migrant households. Comprehending the importance of expenditure on health on health status the pattern and differential of household’s monthly health care expenditure by migration status is analysed in this section.

Table 4.2.1: Pattern of monthly household health expenditure by migration status

Household monthly health expenditure in rupees	Migrants	Non-migrants
Less than 200 rupees	38.4(68)	42.7 (64)
200 - 500 rupees	43.5(77)	43.3(65)
More than 500 Rupees	18.1(32)	14.0(21)
Number of sample	177	150
Mann-Whitney ‘U’ test 0.31		

Source: computed using primary data

Household health care expenditure is a vital indicator on reduction of health hazardous vulnerability as well as it ensures better health care delivery system. In order to ensure in our study population, study has analysed the monthly household health care expenditure by migration status and the result reveals in Table 4.2.1. It is found that increases monthly

health expenditure decreases the percent of household under the category irrespective of their migration status. It is found that 38.4% of migrant households spending monthly less than 200 rupees as compared to 42.7% of non-migrant households. There are equal percent (43.5 % and 43.3%) of both migrant and non-migrant families spending rupees 200-500 per month as their health care. Very few households (i.e., 18.1% of migrant and 14% of non-migrant) are spending more than 500 rupees as their monthly health expenditure.

Table 4.2.2: Social caste wise monthly household health expenditure

Social caste	Less than 200 Rupees	200 - 500 Rupees	More than 500 Rupees
Schedule caste	29.3(17)	53.4(31)	17.2(10)
Schedule Tribe	56.5(13)	34.8(8)	8.7(2)
Other Backward Caste	50.5(47)	37.6(35)	11.8(11)
General	35.9(55)	44.4(68)	19.6(30)
Number of sample	132	142	53

Source: computed using primary data

Comprehending the inequality in health care spending between different social caste and its important on health status, study analyses the information on monthly household's health expenditure by social caste. The results are presented in Table 4.2.2. It is found that majority (53.4%) of schedule caste households are spending rupees 200-500 as their monthly health expenditure. Whereas, majority of the schedule tribe and OBC households (56.5% and 50.5% respectively) are spending less than two hundred rupees as their monthly household health expenditure. More than forty-four (44.4%) percent of households are spending monthly 200-500 rupees as their monthly health care expenditure and General category is their social caste status.

Table 4.2.3: Monthly household health expenditure by social caste and migration status

Social caste	Migrant			Non Migrant		
	Less than 200	200 - 500	More than 500	Less than 200	200 - 500	More than 500

	Rupees	Rupees	Rupees	Rupees	Rupees	Rupees
Schedule caste	20.7(6)	44.8(13)	34.5(10)	37.9(11)	62.1(18)	0.0(0)
Schedule Tribe	66.7(4)	33.3(2)	0.0(0)	52.9(9)	35.3(6)	11.8(2)
Other Backward Caste	56.7(34)	30.0(18)	13.3(8)	39.4(13)	51.4(17)	9.1(3)
General	29.3(24)	53.7(44)	17.1(14)	43.7 (31)	33.8(24)	22.5(16)
Number of sample	68	77	32	64	65	21

Source: computed using primary data

Furthermore, realizing the importance of health expenditure on health outcomes, the study has analyzed the health expenditure across the social categories. The differences of monthly health expenditure among social category are considered by household's migration status. The result shows in Table 4.2.3. The monthly health expenditure on SC and OBC category households are more among migrants while General and ST category households spends more in their health care expenditure on non-migrants. It has been observed that the level of monthly health expenditure more than 500 rupees per-month has significantly difference between migrant and non-migrant households (i.e., 34.0% against 0.0% and 13.3% against 9.1% among migrant households whereas 0.0% against 11.8% and 17.1% against 22.5 % among non-migrant households respectively).

Table 4.2.4: Monthly household health expenditure by household possession of BPL/APL/ Annrapurna and Antodaya Yjana card

Having BPL/APL /Annrapurna/Antodaya	Less than 200 Rupees	200 - 500 Rupees	More than 500 Rupees
Yes	39.4(80)	45.8(93)	14.8(30)
No	41.9(52)	39.5(49)	18.5(23)
Number of sample	132	142	53

Source: computed using primary data

Generally, it is perceived and many past studies cited, the poor people are always vulnerable to various diseases because of low investment on health care. With view on this, it is analysed with pre-determines in mind that household possession of BPL/APL/ Annranpurna and antodaya yojann would have low investment in monthly health expenditure because of poor economic status. The result of the study shows the Table 4.2.4. It is found that household possession of any card 39.4% are spending less than 200 rupees monthly as their monthly health expenditure as compared to only around 15% spending more than 500 rupees per month as their health care expenditure.

Table 4.2.5: Percent of BPL/APL household monthly health expenditure by migration status

Indicators	Migrants			Non Migrants		
	Less than 200 Rupees	200 - 500 Rupees	More than 500 Rupees	Less than 200 Rupees	200 - 500 Rupees	More than 500 Rupees
Yes	37.7(43)	46.5(53)	15.8(18)	41.6(37)	44.9(40)	13.5(12)
No	39.7(25)	38.1(24)	22.2(14)	44.3(27)	41.0(25)	14.8(9)
Number of sample	80	93	30	52	49	23

Source: computed using primary data

By analysing household migration status and possession of BPL/APL/ Annranpurna and Antodaya Yojann the finding indicates a similar trend. That is low investment in health care, if household possession of any cards irrespective of their migration status. The detail result shows in Table 4.2.5

Table 4.2.6: Monthly household health expenditure by standard of living index

Monthly household health expenditure	Low	Medium	High
Less than 200 Rupees	57.5(50)	38.7(60)	25.9(22)
200 - 500 Rupees	31.0(27)	50.3(78)	43.5(37)

More than 500 Rupees	11.5(10)	11.0(17)	30.6(26)
Number of sample	87	155	85

Source: computed using primary data

It is believed that household monthly health care expenditure increases with the increase of household standard of living. To prove this argument, the study analysed the household monthly health expenditure by standard of living. The finding indicates that increasing standard of living of household that increases the monthly health care expenditure. Other way monthly health expenditure is positive correlated with household standard of living. The findings of the study reveal that 57.5 % of household belonging to low standard of living index spending less than 200 hundred rupees per-month as their health expenditure in contrast to 25.9% high standard of living index. Another, 11.5% of households belonging to low standard of living index spending more than 500 rupees per month as their health care expenditure than 30.6% of households in high standard of living index. The result of the study shows the Table 4.2.6.

Table 4.2.7: Percentage of household monthly health expenditure in standard of living by migration status

Monthly household health expenditure	Migrants			Non Migrants		
	Low	Medium	High	Low	Medium	High
Less than 200 Rupees	75.0(21)	32.3(30)	30.4(17)	49.2(29)	48.4(30)	17.2(5)
200 - 500 Rupees	10.7(21)	54.8(51)	41.1(23)	40.7(24)	43.5(27)	48.3(14)
More than 500 Rupees	14.3(4)	12.9(12)	28.6(16)	10.2(6)	8.1(5)	34.5(10)
Number of household	28	93	56	59	62	29

Source: computed using primary data

Assuming the migrant households are spending more on health care across household standard of living over non-migrant counterparts the study analysed the percentage of household monthly health expenditure in standard of living index by household migration

status. The result is depicted the Table 4.2.7. It is found that increasing household's standard of living the monthly health expenditure also increases from lower expenditure category to upper expenditure category irrespective of their migration status. For instances; among migrant households around 14% of household in low standard of living index spending more than 500 rupees per month as their monthly health expenditure than 28.6 % of high standard of living index in same expenditure category. Similarly, among non-migrant households around 10% are spending more than 500 rupees as their monthly health expenditure positioning in low standard of index as compared to 34.5% positioning in high standard of living index in same expenditure category.

Table 4.2.8: Monthly household health expenditure and any adult member suffered from any diseases by migration status

Monthly health expenditure	Migrants	Non-Migrants
Less than 200 Rupees	42.7(56)	47.0(54)
200 - 500 Rupees	41.2(54)	42.6(49)
More than 500 Rupees	16.0(21)	10.4(12)
Number of household	131	115
Mann Whitney Test 0.025		

Source: computed using primary data

As we know and stated above that increasing household monthly spending on health care the decreases the burden of diseases. This negative correlation already exhibits in many past studies. To validate the argument in our sample population data has been analyzed. The result of monthly health expenditure and burden or incidence of diseases of household adult members by migration status shows the Table 4.2.8. It is found that 42.7% of migrant household adult members had any disease in last two weeks prior to the household survey, spending monthly less than 200 rupees per month as their health expenditure in comparison to 47% of non-migrant households. Similarly, 41.2% of migrant adult household members suffered from any diseases in comparison to 42.6% of non-migrant adult members spending 200-500 rupees as their monthly health expenditure. Sixteen percent of migrant members suffered from any diseases in

comparison to 10.4% of non-migrant household members spending more than 500 rupees as their monthly health expenditure. The difference of disease burden in different expenditure groups by household migration status is statistically significant at 95% of confidence limit.

Table 4.2.9: Monthly household health expenditure and at-least one disease in children by migration status

Monthly health expenditure	Migrants	Non-Migrants
Less than 200 Rupees	38.3(46)	41.4(41)
200 - 500 Rupees	42.5(51)	40.4(40)
More than 500 Rupees	19.2(23)	18.2(18)
Number of household	120	99
Mann Whitney Test 0.02		

Source: computed using primary data

More details, monthly health care expenditure analyzed by household's child health status with household migration status and the result shows the Table 4.2.9. The analysis included the percent of children suffered from at-least one diseases in last two weeks prior to the survey. It is found that 38.3% of children of migrant households had suffered from at-least one diseases spending less than 200 rupees per-month as their monthly health expenditure in comparison to 41.4% of children of non-migrant households spending the same amount as their health care. Similarly, another 42.5% of children of migrant household suffered from at-least one diseases the last two weeks prior to the survey compared to 40.4% of non-migrant household children spending 200-500 rupees as their household monthly health care expenditure. Nineteen percent of migrant household children had suffered from any diseases as compared to 18.2% of non-migrant household children, spending more than 500 rupees as their monthly health care expenditure. The difference of burden of disease in different expenditure groups between household migration statuses is statistically significant at 5% level of significance.

Table 4.2.10: Household monthly health expenditure by age at migration

Age at migration	Less than 200 Rupees	200 - 500 Rupees	More than 500 Rupees
Less than 15 years	37.5(3)	41.3(74)	60.0(3)
16-35 years	37.5(3)	41.9 (75)	40.0(2)
Above36 years	25.0(2)	16.8(30)	0.0(0)
Number of sample	8	179	5

Source: computed using primary data

As we have discussed above the process of migration brings many social, economic and health changes. To understand the impact of migration, the study has analyzed the household monthly health expenditure by age at migration. More elaborately, migration at working age group would be able to earn more at destination and that increases the income of migrants, which may enable the migrants to remit more to origin, as a result increases the household's overall consumption expenditure in general and health expenditure in particular. The result of the monthly health expenditure by broad age at migration shows in Table 4.2.10. It is observed that migration at younger age (15-35 years) has significant impact on the household's health care expenditure in comparison to older (more than 35 years) age at migration. For example, 37.5% of household spending monthly less than 200 rupees as their household health care expenditure who were migrate at age less than 35 years as compared to 25% in age above 36 years.

Table 4.2.11: Household monthly health expenditure by migrants' monthly earning at destination

Age at migration	Less than 2,000 Rupees	2,000 - 5,000 Rupees	More than 5,000 Rupees
Less than 200 Rupees	100.0(6)	51.1(23)	36.2(51)
200 - 500 Rupees	0.0(0)	37.8(17)	44.7(63)
More than 500 Rupees	0.0(0)	11.1(5)	19.1(27)
Number of sample	6	45	141
Mann Whitney Test 0.025			

Source: computed using primary data

As we mentioned previously increase income of migrants at destination would be enable the migrants to remit more. Further, the increased remittances to migrant households enable the households to spend more on health care. The findings of the result is depicted the Table 4.2.11. It is found that the monthly health expenditure increases with increasing migrants' income. For instance, eleven percent household spends more than 500 rupees as their health expenditure with earning 2,000-5,000 rupees per month. Around 19% spends more than 500 rupees as their health care with earning more than 5,000 rupees per month. To substantiate the quantitative finding of the study we resembled one of the qualitative finding of the study quoted one of our sampled population in Odia“ *Surat Jibaru tankar ghare bhalabhabe chuli jalila and tanka manakar gara abasta sudhuriala. Semane tankar pialmankare swastya abastara unnarti anniparile. Agakalari jetebele tankara pakhare paisa nathila sabu bhagabanankara upare chadideuthila ousadha patra ta durara katha daktarakhana pakhadekhinahile. Matra tanka ghara loka bharaku jibaru semane turanta kichi hela matrake daktarakhana ku chalijauchanti*” In English “*After migration to Surat they could economically well up and able to push their standard of living in up-ward section. As a result, we can visualize the improvement of their children’s health status. However, before migration if anybody suffered from any diseases of their families they left the patient with the blessing of almighty, they never gone to the health facility for health care because of unable to bear the cost of health expenditure. But now- a-days they could be able to access to health centres immediately what ever happened with them it could be possible due to migrant remittances*”.

Table 4.2.12: Household monthly health expenditure by received remittances

Monthly health expenditure in rupees	Less than 2,000 Rupees	2,000 - 5,000 Rupees	More than 5,000 Rupees
Less than 200 Rupees	49.2(31)	42.4(36)	29.5(13)
200 - 500 Rupees	36.5(0)	47.1(40)	38.6(17)
More than 500 Rupees	14.3(9)	10.6(9)	31.8(14)
Number of sample	63	85	44
Mann Whitney Test 0.023			

Source: computed using primary data

Increasing monthly health care expenditure with increasing income at destination found in Table 4.2.11. Does this increased income at destination really translate to increasing remittances and finally on health care expenditure? To find out the answer of the above statement the study analyzed the household health expenditure with amount of received remittances and the result presented in Table 4.2.12. It is found that 14.3 % of the migrant households spending more than 500 rupees per month as their health care expenditure received remittances less than 2,000 rupees per month as compared to 31.8 % of household spending same amount i.e., 500 rupees as their monthly health expenditure while they received more than 5,000 rupees per month as migrant remittances. Therefore, it can conclude that with the empirical evidences that the increasing migrant remittance with increases the household level of health care expenditure.

Table 4.2.13: Percentage of adult member suffered from at-least one diseases by household monthly health expenditure and received amount of monthly remittances

Monthly health expenditure	Less than 2,000 Rupees	2,000 - 5,000 Rupees	More than 5,000 Rupees
Less than 200 Rupees	54.5(24)	46.8(29)	29.7(11)
200 - 500 Rupees	31.8(14)	50.0(31)	35.1(13)
More than 500 Rupees	13.6(6)	3.2(2)	35.1(13)
Number of sample	44	62	37
Mann Whitney Test 0.010			

Source: computed using primary data

The empirical evidences suggest that increasing migrant remittance that increases the household level of health care expenditure. However, increased expenditure on health aspects really come out any positive outcomes on health status i.e., decreases the prevalence of diseases. To test this argument, study analyzed the information of percent of adult members suffered from any diseases with monthly household health expenditure and remittances. The result shows the Table 4.2.13. It is found that increased health expenditure with increased remittances resulted decrease the burden of diseases. For

example, around 55% of adult members suffered from any diseases, household received migrant remittances less than 2,000 rupees and spending less than 200 rupees per month as their health expenditure. On the other hand, around 35 % of adult member suffered from at-least one diseases household received remittance more than 5,000 rupees and spending more than 500 rupees per month as their health expenditure.

Table 4.2.14: Children suffered from at-least one diseases by household monthly health expenditure and received remittances in percent

Monthly health expenditure	Less than 2,000 Rupees	2,000 - 5,000 Rupees	More than 5,000 Rupees
Less than 200 Rupees	50.0(23)	45.8(27)	22.2(6)
200 - 500 Rupees	34.8(16)	47.5(28)	33.3(9)
More than 500 Rupees	15.2(7)	6.8(4)	44.4(12)
Number of sample	46	59	27
Mann Whitney Test 0.012			

Source: computed using primary data

Unlike the impact of migrant remittances on adult health outcomes does it same for child health cases. More details the increases households out of pocket expenses on health aspects really come out with positive outcomes on child health. To test this argument we analyzed the information on percentage of children suffered from at-least one diseases with monthly household health expenditure and household received remittances. The result shows the Table 4.2.14. It is found that increased health expenditure with increasing remittances resulting positive impact on child health outcome. It is found that 50% of children had suffered from any diseases last two weeks prior to the survey with household receiving migrant remittances less than 2,000 rupees and spending less than 200 rupees as their health expenditure per month. Similarly, around 45% of children suffered from any diseases receiving remittance more than 5,000 rupees and spending more than 500 rupees per month as their health care expenditure.

Table 4.2.15: Pattern of household consumed nutritional food such as milk, pulses and dark leafy by migration status

Categories	Milk and cords		Pulses or bean		dark leafy vegetable	
	Migrants	Non-migrants	Migrants	Non-migrants	Migrants	Non-migrants
Daily	77.7(233)	79.0(237)	9.3(28)	3.7(11)	67.7(203)	73.3(220)
Weekly	18(6.0)	6.3(19)	15.3(46)	13.3(40)	10.7(32)	8.7(26)
Occasionally	7.7(23)	6.0(18)	59.7(179)	72.7(218)	15.3(46)	10.0(30)
Never	8.7(26)	8.7(26)	15.7(47)	10.3(31)	6.3(19)	8.0(24)
Number of sample	300	300	300	300	300	300

Source: computed using primary data

Simple looking the increases level of income or household standard of living that is not sufficient to conclude the households have better health indicators. Of course, income is one crucial component to determine the level of health status of the household but not sufficient to shape the level of health status. On the other hand increasing, income level may prevent the household from various diseases in two ways. One is direct i.e., meeting direct health expenditure and other indirectly through increasing the expenditure in better health related activities such as expenses in nutritional food like milk, green vegetable, meat and egg etc, expenses in health insurance and physical exercise etc. Therefore, it is conceptualized that whether the increasing household income through migrants' remittances really increases the household's level of consumption expenditure on nutritional food. Hence, the study probed the respondent how often member of your household consuming nutritional food such as milk and cord, pulses or beans and dark leafy vegetables. It is assumed that increases frequency of consumption of these nutritional items increases the level of nutrition status of body and therefore on health outcome. The result shows in Table 4.2.15. It is found that around 78 % of migrant households consumed daily milk and cords, 9.3% consumed daily pulses or bean and

67.7% consumed daily dark leafy vegetable as compared to 79 %, 3.7 and 73.3% of non-migrant households consumed daily in same item respectively.

Table 4.2.16: Pattern of consumption of nutritional food such as fruits, eggs and meats by household migration status

Categories	Fruits		Eggs		Meats	
	Migrants	Non-migrants	Migrants	Non-migrants	Migrants	Non-migrants
Daily	13.0(203)	7.3(22)	12.3(37)	8.0(24)	5.7(17)	4.7(14)
Weekly	44.3(32)	50.3(151)	47.3(142)	54.0(162)	6.0(18)	7.7(23)
Occasionally	15.3(46)	33.3(100)	23.3(70)	22.7(68)	64.0(192)	71.3(214)
Never	6.3(19)	9.0(27)	17.0(51)	15.3(46)	24.3(73)	16.3(49)
Number of sample	300	300	300	300	300	300

Source: computed using primary data

More on the nutritional food intake among the study population the study probed further details on the consumption of nutritional food such as fruits, eggs and meats. It is found that only 13 % of migrant households are consumed fruits daily, 12.3% are consumed eggs and 5.7% are consumed meats daily in contrast to 7.3 %, 8% and 4.7% of non-migrant households consumed daily in same items. Hence, the empirical evidence suggests that the consumption of nutritional food by migrant households is more common as compared to non-migrant counterparts.

Table 4.2.17: Percentage of adult members suffered from at-least one disease by pattern of nutritional food intake and household receiving monthly remittances

Monthly remittances in rupees	Daily	Weekly	Never
Less than 2,000	30.1(41)	30.3(33)	24.3(18)
2,000-5,000	48.5(66)	45.9(50)	51.4(38)
More than 5,000	21.3(29)	23.9(10)	24.3(18)
Number of sample	136	109	74

Source: computed using primary data

It is hypothesized that increase of the income level of household through migrant remittances, that enables household to spend more on their income on consumption particularly on nutritional foods and which would be enable the household members to reduce the of burden of diseases. Testing the above hypotheses the data was analyzed and result shows in Table 4.2.17. It is found that 30.1% of adult member had suffered from at-least one disease consuming daily at least any one above nutritional food and with household received remittances less than 2,000 rupees per month. On the other hand around 21% of adult member had suffered from at-least one diseases with consumed daily at least one nutritional food and received more than 5,000 thousand rupees as migrant remittances. It is clear from the empirical evidences that increased household income level perpetuate household to more expenditure on nutritional food and reduces the burden of diseases among the family members. The study also found that household consumed daily nutritional food the percent of burned of disease less likely as compared to household consumed in weekly or occasionally nutritional food irrespective of the household received migrant remittances.

Table 4.2.18: Percentage of children suffered from any disease by pattern of nutritional food intake and household monthly spending on health care

Monthly health expenditure	Daily	Weekly	Never
Less than 200	34.9(37)	38.8(33)	52.5(32)
200-500	44.3(47)	37.6(32)	24.6(15)
More than 500	20.8(22)	23.5(20)	23.0(14)
Number of sample	106	85	61

Source: computed using primary data

As we stated above increased income has two ways effect on to bring out the better health status. One is increased health expenditure directly other way through increased consumption on nutritional food intake. If both will work out simultaneously then the pace of outcome would be sharper. To prove these arguments, the information was analyzed and the result shows the Table 4.2.18. It is found that around thirty-five percent of children had suffered from any kind of diseases household consumed daily at least any

one of nutritional food and monthly health expenditure less than 200 hundred rupees per-month. On the other hand around 53 % of children had suffered from any diseases never consumed any nutritional food and monthly health expenditure less than 200 hundred rupees per-month. Similarly, around 21 % of children had suffered any kind of disease spending more than 500 rupees as their monthly health expenditure and consuming daily at least any one of nutritional food as compared to 23 % of children suffered from any diseases spending the same amount as their health care.

Table 4.2.19: Percentage of children had suffered from any diseases receiving migrants' remittances and nutritional food intake by standard of living index

Migrants remittance	Daily			Weekly			Never		
	SLI			SLI			SLI		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
Less than 2,000 rupees	0.0(0)	23.7(18)	31.3(60)	0.0(0)	23.1(15)	29.8(45)	0.0(0)	19.1(9)	36.4(32)
2,000-5,000	100.0(3)	61.8(47)	49.5(95)	100.0(1)	60.0(39)	49.0(74)	100.0(1)	51.1(24)	44.3(39)
More than 5,000	0.0(0)	14.5(11)	19.3(37)	0.0(0)	16.9(11)	21.2(32)	0.0(0)	29.8(14)	19.3(17)
Number of sample	3	76	192	1	65	151	1	47	88

Source: computed using primary data

Percentage of household's children had suffered from any disease in migrants' remittance status with relation on nutritional food intake by household standard of living. It has been observed that increased migrants' remittances household spending more on consumption on nutritional food intake and reduces the chances of illness. The result shows the Table 4.2.19. It is found that household received more than 5,000 rupees per month as migrant remittances the consumption of daily nutritional food the chances of children getting illness was 14.5 % as compared to 29.8 % of household consumed never any nutritional

food and medium is their standard of living index. More or less, it is found that household receiving more migrant remittances they are spending more in the consumption of nutritional food intake as a result the incidences of illness among household members decreases irrespective of their household standard of living.

Impact of health knowledge, information and health care expenditure on child health outcomes

The key objective of this chapter was to find out the impact of health knowledge, information and health care expenditure on health outcomes. Study also emphasised the impact of women empowerment and decision making on child health. Moreover, the women empowerment influences level of health knowledge, information and health care spending both directly and indirectly. To distinguish the impact of health knowledge, information and expenditure on child health status and outcomes the study used three logistic regression models. To observe the child health status and child health outcomes the study used child nutritional status i.e., children below -2SD and below -3SD and any child suffered from any diseases in last two weeks prior to the survey as dichotomous nature of dependent variables with coded ‘1’ a occurrence of events and ‘0’ is otherwise as child health outcomes respectively. More on, the logistic model assessed using child nutrition and diseases as dependent variable with household level of health knowledge and health information, level of women empowerment, monthly health care expenditure, frequent nutritional food intake, household migration status using as explanatory variables. The logit model has been specified as follows for instances percent of children living below -3SD, Z-scores

$$P = \frac{1}{1 + e^{-(a + bx)}} \dots\dots\dots i$$

Where ‘a’ & ‘b’ are constants,

Where, P- Percent of children living below -3SD, Z-scores =1

‘1-P’ Otherwise=0

Hence,

and $\frac{P}{1-P} = e^{a+bx}$

Therefore, $\log \frac{P}{1-P} = a + bx$ ii

Therefore the final model is;

$\log \frac{P}{1-P} = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + \mu$ iii

Where, P- percent of children living below -3SD, Z-scores=1

Otherwise is (1-p)=0

A-Constant

b1:b3-logistic regression coefficients

X1: Level of health knowledge and health information (1-low, 2-high-3- medium)

X2: Level of women empowerment (1-low, 2-high-3- medium)

X3: Household monthly health expenditure (1- less than 200 rupees, 2- 200-500 and 3- more than 500 rupees)

X4: Household frequent of nutritional food intake (1- daily, 2- weekly and 3- occassionally)

X5: Household migration status (1-Migratn household and 2-Non-migrants household)

Table 4.2.20: Result of logistic regression

Dependent variable: Y1-at-least one child diseases (1-yes, 0-No); Y2-percent of children below -3SD (1-yes, 0-No); Y3 percent of children below -2SD (1-yes, 0-No)

Indicators	Categories	Odds ratio (β) migrant households			Odds ratio (β) non-migrant households			Overall Odds ratio (β) non-		
		Y ₁	Y ₂	Y ₃	Y ₁	Y ₂	Y ₃	Y ₁	Y ₂	Y ₃
Level of health knowled	Low	1.73**	0.75	0.52	2.2	1.96	0.95	1.33**	0.85	0.72
	Mediu m	1.92	0.54	0.34*	0.91	1.6	1.7	1.22	0.64	0.44*

ge	High^R									
Level of women empowerment	Low	4.8**	0.5	0.8	2.2	1.4	1.8	2.8**	0.9	0.6
	Medium	2.9**	1.02	1.5	1.3	4.4*	3.6*	2.5**	1.1	1.7
	High^R									
Household monthly health expenditure in rupees	<200	1.5	0.6	0.9	1.9	0.8	2.3	1.3	0.5	0.3
	200-300	0.8*	1.6	1.4	0.9	0.6	1.6	0.9**	1.9	1.1
	>500^R									
Frequent nutritional food intake	Daily	0.72**	0.4	0.88	3.1	0.6	0.53	0.82**	0.8	0.88
	Weekly	0.53**	0.6	0.78	0.8	0.6	0.57	0.63**	0.9	0.65
	Occasionally^R									
Migration status	Migrant^R									
	Non-migrant							2.4**	1.9*	0.98
Constant		0.83	0.36	0.54	6.1	0.21	0.2*	1.67*	8.1*	2.41*
-2log likelihood	149.31	102.1	104	142.8	79.2	85.4	142	179.2	235	215.4
Cox and Snell	0.11	0.06	0.04	0.04	0.14	0.08	0.45	0.41	0.81	0.82
Nagelkerke	0.15	0.09	0.08	0.06	0.22	0.13	0.06	0.72	0.31	0.32

N	136	136	136	136	90	90	90	225	225	225
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0<p<0.05, *0<p<0.001, *0<p<0.1, ^R - Reference category; Source: computed using primary data; N:Sample size

The results of the logistic regression are shown in the Table 4.2.20. It is found that the dependent variable any child suffered from at-least one diseases the level of health knowledge and information, nutritional food intake, and level of women empowerment playing a deterministic role to determine the child health status among migrant households. While among non-migrant households only health knowledge and health information determine the health status of children keeping all factors are remaining same. Further, among the health knowledge and health information categories, household having high health knowledge and health information, the impact on child health is more to determine the children's health status as compared to low and medium health knowledge and health information households. Our empirical finding indicates that the odds of children suffering from at-least one diseases in low and medium health knowledge and health information households are 1.73 and 1.92 respectively. On the other hand, 0.73 and 0.92 more likely as compared to the household having high health knowledge and health information's and these finding observed among the migrant households. Similarly, household consumed daily nutritional food the odds of suffering any children in at-least one diseases is less likely 0.28 as compared to household consumed nutrition food occasionally and the result is statistically significant at 95% level of confidence interval. Similar, observation made in other independent variables and categories as well as non-migrant households. Overall the logistic regression model of the study found that children of non-migrant household are more than twice (2.4) likely to suffer in at-least one diseases as compared to children in migrant households. The result also reveals statistically significant at 0.001 % level of significance.

4.3: Summary and conclusion

In conclusion, we can understand with empirical evidences that migration not only improves the financial or social stature of migrants' and their left behind family members but it also improves the health knowledge, information, awareness, health care spending

and health status of the left behind family members in general and child health in particular. It has been observed that the process of migration has significant contribution on improvement of health knowledge and information particularly on HIV/AIDS. The difference of health knowledge, information and awareness among household members has been observable (8%) in study population. This makes difference in health status over non-migrant counterparts. The level of woman empowerment and decision-making (access to institution and facility) is higher among migrant families than non-migrant families. These differed health knowledge, information and level of women empowerment make out significant changes in the health status of children over non-migrant families. The two ways effect of migration i.e., through migrant remittances and with transforming health knowledge and health information to origin and changing, the health practices are sharper to improve the health status of left behind family members. More on the empirical evidence also suggests that increasing migrants' remittances increase the household's monthly health expenditure and reduces the burden of diseases among sample population. Further, the increasing household's monthly health expenditure make-out significant changes in health status of left behind family members over non-migrant counterparts at origin irrespective of household social and economic status indicates by empirical evidences. The study also found that increasing migrant remittances increases the consumption of nutrition food intake such as milk, cord, bean, green-leaf, meat and egg etc. among the left behind family members as a result the members improve their nutritional stature and consequently on low exposure to various diseases.
