

Socio-Economic Situation, Sanitation and Vaccination of Ethnic Children

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Received date: 15 October 2024; **Accepted date:** 22 October 2024; **Published date:** 25 October 2024

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Citation: Monoarul Haque, Tasmiah Tamanna, Hossain Md Al-Amin, Uprue Shing Marma, Rokaiya Bintah Alamgir, Jannat Sultana. Socio-Economic Situation, Sanitation and Vaccination of Ethnic Children. Journal of Medicine Care and Health Review 1(3). <https://doi.org/10.61615/JMCHR/2024/OCT027141025>

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Abstract

Undoubtedly economically and socially Bangladesh has been developing in its own fashion over the years. Income-generating capacity has increased along with the literacy rate. Infant and maternal mortality have declined remarkably. However, challenges still remain to keep children healthy, particularly in hilly and riverine forest-dense areas. To explore socioeconomic status, sanitation and immunization coverage of ethnic children residing in Bandarban hill district was the objective of the research. A cross-sectional research design was implemented. This was a years duration study. Bandarban is a hilly and forest-dense area. Samples were collected through door-to-door surveys. The average age of the participants was 4.21±0.80 years. Most of the parents completed primary education. Day labor and housewives were prominent in number. The average monthly family income of the study subjects was 13916.02±10689.76 BDT. Distribution of sanitary (water sealed) latrines, partial sanitary (not water sealed) latrines, non-sanitary (kancha) and open latrines was 66.30%, 14.60%, 8.30%, and 10.90% respectively. Immunization coverage was 81.30%.

Kew words: Socio-economic Situation, Sanitation, Vaccination, Ethnic Communities.

Introduction

Ethnic people reside in different areas of Bangladesh; they are distinct because of their diverse lifestyle, salient features of dietary habits and cooking practices, traditional way of living material, preference for hilly, riverine, and forest-dense areas, cultural variation, professional diversity and Indigenous origin (Haque and Zannath, 2016). Gradually Bengali people are settling there. Numerous non-governmental organizations are working there to create awareness and provide healthcare services along with Government initiatives to uplift these inhabitants but much of the information is unknown due to sufficient and valid data. As socioeconomic status, sanitary conditions, and immunization are considered important determinants of the health profile of any community, so baseline survey-like study is desirable to fill the knowledge gap and break the wisdom of knowledge. Our day-to-day observation finds that tribal families are self-dependent in terms of clothing,

food, dwelling material, etc. These unique criteria attempted us to conduct the study.

Methods

The present study was carried out at a single point in a specified time at Bandarban Sadar Upazila to collect samples. Face-to-face interview was conducted by using a pre-tested structure questionnaire. The detailed procedure of the study and the significance of the study was explained followed by rapport building with the respondents. A local language interpreter helped us to interpret. Every night we checked the data for consistency and completeness. Data were categorized and coded during entry into the SPSS software.

Results

Table 1. Age distribution of the study subjects

Age in year	Frequency	Percentage
Mean±SD	4.16±0.82	

3	213	27.5
4	228	29.5
5	333	43.0
Total	774(100.0)	

The average age of the study subjects was 4.21±0.80 years. Among ethnic groups highest portion (44.4%) belonged to the 5-year age group followed by 31.8% from 4 years and the lowest portion (23.8%) from 4 years.

Figure 1. Gender of the study subjects Boy and girl distribution was 54.40% and 44.60%

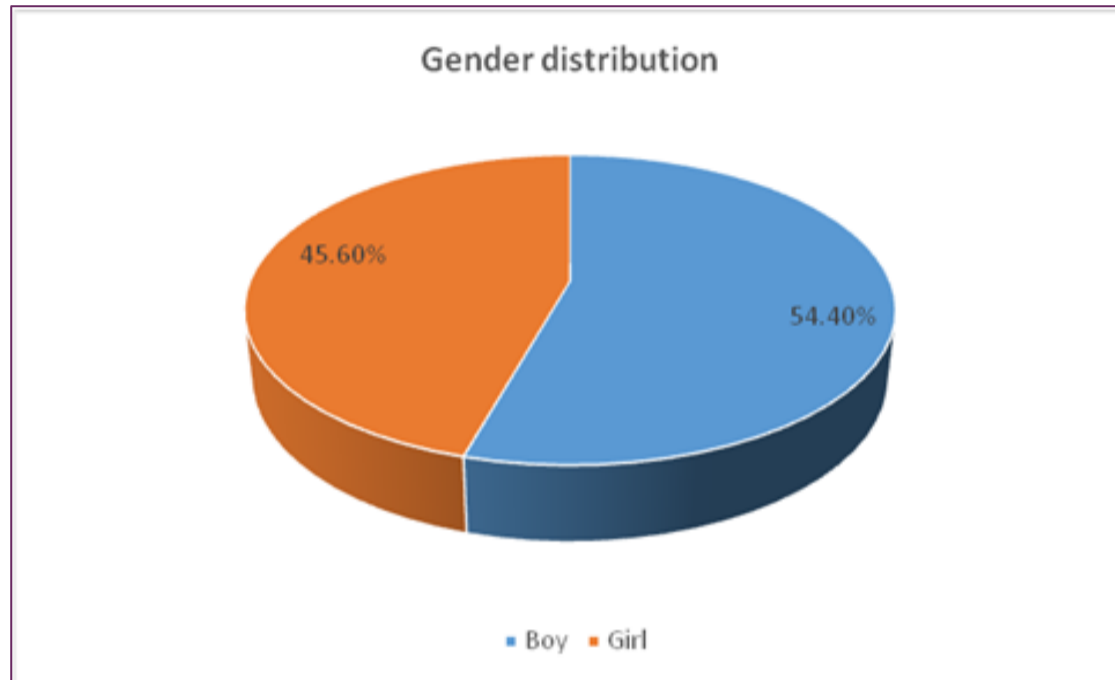


Figure 2. Family size of the study subjects More than half of the study subjects (55.90%) had 3-4 household members (small family) followed by medium family 32.40% and large family 11.60%.

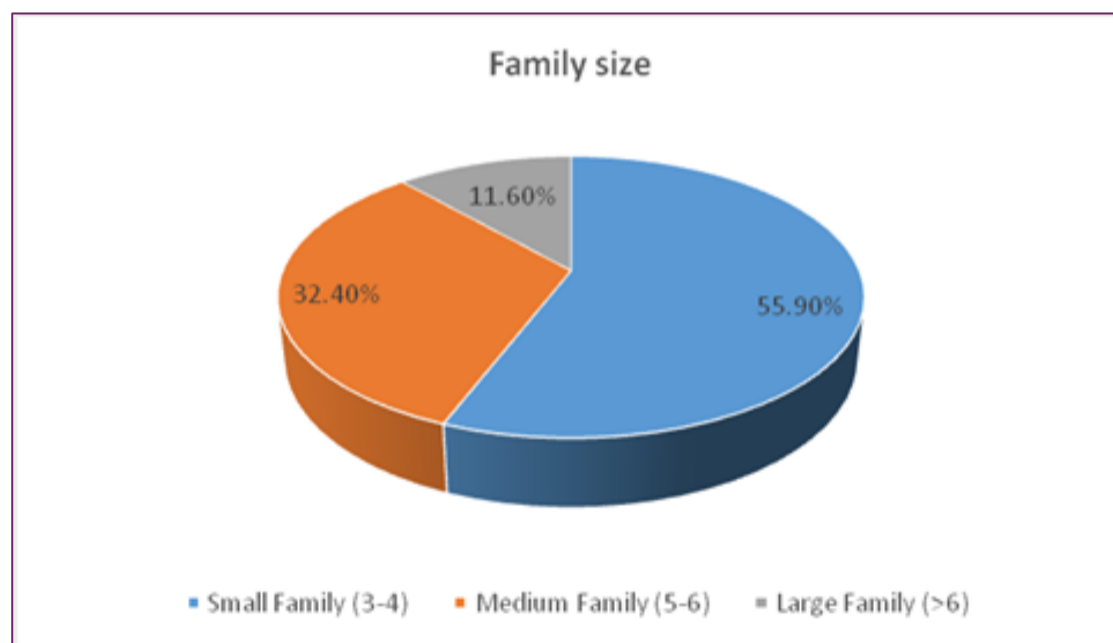


Figure 3. Number of children Nearly two-thirds of the respondents (71.40%) belonged to 1-2 children followed by 21.80% had 3-4 children and 6.70% had >4 children.

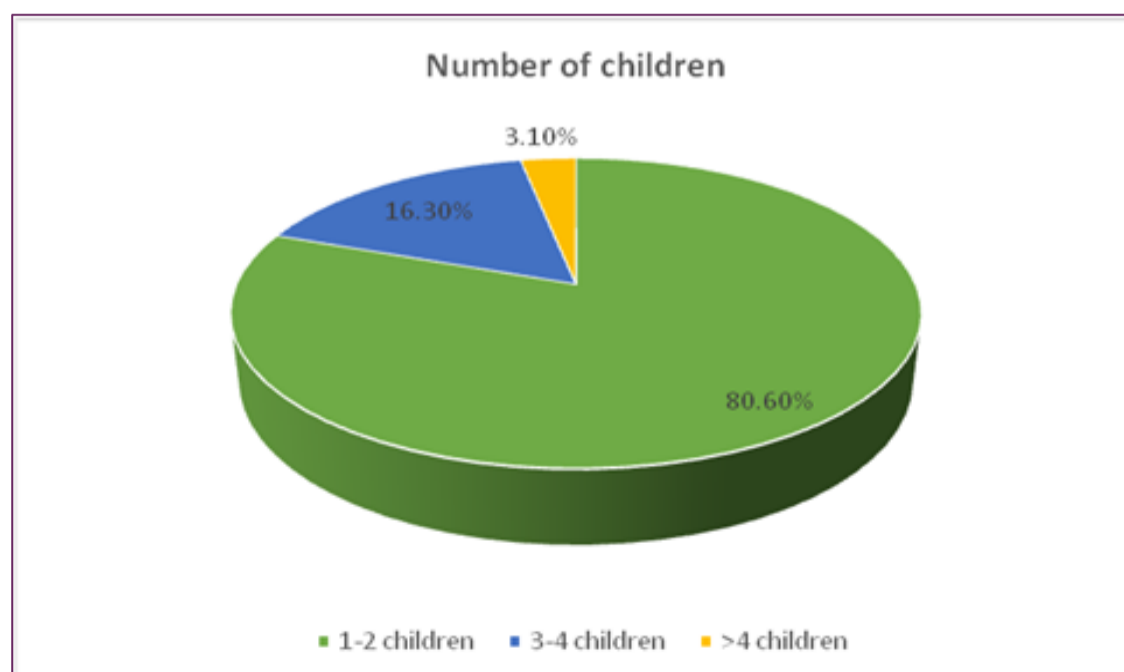


Table 2. Education of parents Most of the fathers and mothers (31.9% and 33.2%) children completed primary education followed by under SSC (19.3% and 19.8%), can sign only (17.8% and 17.7%), illiterate (9.8% and 9.8%), SSC (8.9% and 8.1%) and HSC (5.0% and 5.6%).

Education	Father	Mother
Illiterate	76(9.8)	76(9.8)
Can read only	5(0.6)	11(1.4)
Can sign only	138(17.8)	137(17.7)
Can read and write	11(1.4)	13(1.7)
Primary	247(31.9)	257(33.2)
Under SSC	149(19.3)	153(19.8)
SSC	69(8.9)	63(8.1)
HSC	39(5.0)	43(5.6)
Bachelor	20(2.6)	12(1.6)
Masters	20(2.6)	9(1.2)
Total	774(100.0)	774(100.0)

Table 3. Occupation of parents More than half (56.3%) of father was day laborers followed by service holders 17.2%, businessmen 16% and farmers 10.5%. About 91.3% of mothers were housewives 4.4% did service and 2.8% engaged themselves in agricultural activity.

Occupation	Father	Mother
Day labor	436(56.3)	3(0.4)
Agriculture	81(10.5)	22(2.8)
Business	124(16.0)	8(1.0)
Service	133(17.2)	34(4.4)
Housewife	0(0.0)	707(91.3)
Total	774(100.0)	774(100.0)

Table 4. Monthly family income The average monthly family income of the study subjects was 13916.02±10689.76 BDT whereas median income was 13000 BDT. The minimum and maximum income was 2000 BDT and 70000 BDT. Lower middle-income, low income, and upper middle-income families were 52.3%, 30.4%, and 17.2%.

Family Income	Study Subjects
Mean±SD	13916.02±10689.76
Median	13000.00
Minimum	2000.00
Maximum	70000.00
Low-income (\leq \$75.41 or BDT \leq 5360)	235(30.4)
Lower middle-income (\$75.5 - \$299.58 or BDT 5361-21270)	405(52.3)
Upper middle-income (\$299.68 - \$926.25 or BDT 21271-65761)	133(17.2)
High-income (\geq \$926.33 or BDT \geq 65762).	1(0.1)
Total	774(100.0)

Table 5. Commodities in home TV was found among 56.2% of respondents followed by freeze 19.4%, motor-cycle 7.6%, and sewing machine 8.1%. Most of the respondents had electricity support in their homes. Mobile phones and fans were available there.

Commodities	Yes	No
TV	435(56.2)	339(43.8)
Freeze	150(19.4)	624(80.6)
Fan	567(73.3)	207(26.7)
Mobile	698(90.2)	76(9.8)
Telephone	2(0.3)	772(99.7)
Laptop/computer	33(4.3)	741(95.7)
Electricity support	614(79.3)	160(20.7)
Handloom machine	17(2.2)	757(97.8)
Sewing machine	63(8.1)	711(91.9)
Bi-cycle	47(6.1)	727(93.9)
Motor-cycle	59(7.6)	715(92.4)
Boat	1(0.1)	773(99.9)

Table 6. Hygiene Status Almost all of the mother and children washed their hand and utensils before feeding/eating by means of water only (third-fourth) and soap plus water (one-fourth).

Hygiene	Number	Percentage
Before feeding your child, do you wash your hands?		
Yes	773	99.9
No	1	0.1
If yes, how do you wash your hands?		
Water only	569	73.5
Soap	205	26.5
Before feeding your child, do you wash your utensils?		
Yes	772	99.7
No	2	0.3
If yes, how do you wash your utensils?		
Water only	506	65.5
Soap	266	34.4
Ash	2	0.1
Does your child wash hands before taking food?		
Yes	761	98.3
No	13	1.7
If yes, how?		
Water only	538	70.5
Soap	233	29.1

Ash	3	0.4
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Figure 4. Sanitary condition Distribution of sanitary (water sealed) latrines, partial sanitary (not water sealed) latrines, non-sanitary (kancha), and open latrines were 66.30%, 14.60%, 8.30%, and 10.90% respectively.

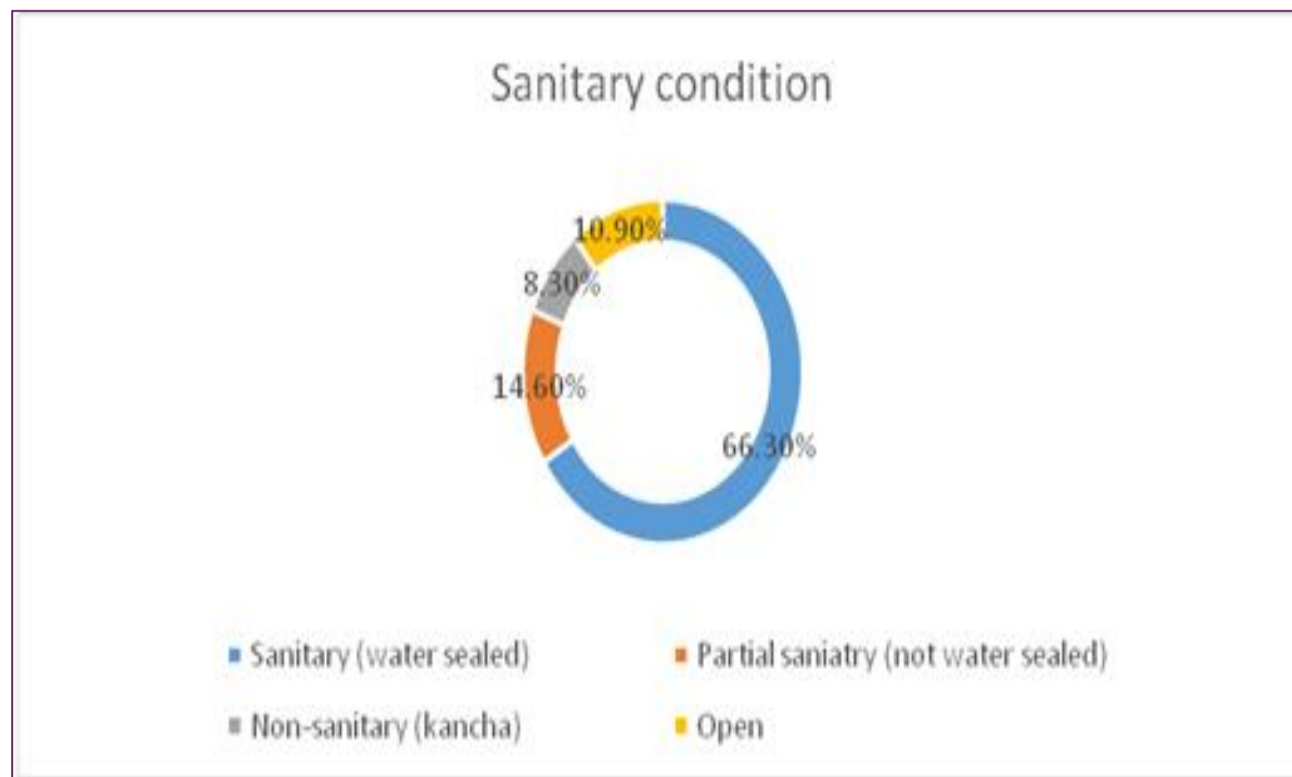
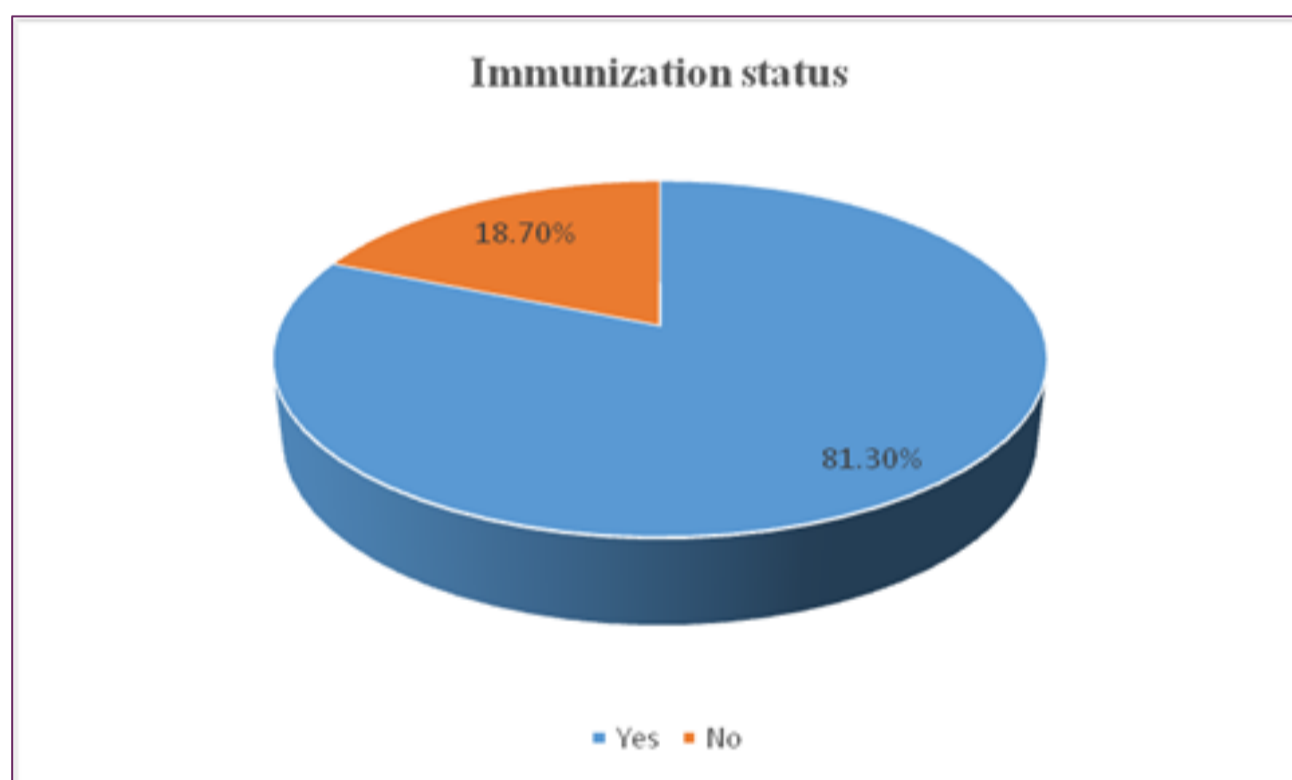


Figure 5. Immunization coverage Immunization coverage was 81.30%.



Discussion

It is established that South-East Asia is prone to developing unhealthy situations. Rao et al (2016) rightly stated that socioeconomic characteristics were statistically associated with a child's nutritional status. It is evidence-based that poor drinking water facilities, inadequate sanitary facilities, and poor hygiene particularly during food preparation are the main causes of many infections among young children (Matthew, et al, 2019). Documents confirm that birth spacing, skilled birth attendants, economic development, and greater per capita health expenditures are beneficial for the children of disadvantaged mothers, but the wealthy benefit is greater in the case of skilled birth attendants and from higher per capita expenditure on health (Tim et al. 2016). Zanver (2007) carried out a study and found that Grade I and Grade III malnutrition were more in early age (3-4 years) while Grade II malnutrition was prevalent more during later age (4-5 years). More percent of (47%) male subjects suffered from different grades of malnutrition than

female subjects (43%). The influence of socioeconomic factors occupation, paternal literacy level, and monthly family income showed that children from farmer's families having educated parents and from families with comparatively more family income suffered less from various grades of malnutrition. Bhattacharyya & Sarkar (2010) found that maximum and minimum under-nourished children were found among those fathers were agricultural laborers and service holders. In our culture, illiterate or less educated people are commonly engaged in day labor or agricultural activities. I had to face challenges during data collection like heavy rainfall, hill destruction, no transport/communication system except walking, and diverse and distant locations or distribution of ethnic houses.

Conclusion

Sanitation was not up to the mark. Immunization coverage was better among ethnic groups.

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