ISSN: 0975-833X

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 17, Issue, 07, pp.34095-34103, July, 2025
DOI: https://doi.org/10.24941/ijcr.49304.07.2025

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

RESEARCH ARTICLE

THE SOCIO-LEGAL FACETS OF REPRODUCTIVE AND CHILD HEALTH FOR TRIPURA: A MULTIDIMENSIONAL ANALYSIS USING NFHS-V

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ARTICLE INFO

Article History:
Received09th March, 2025
Received in revised form
21st April, 2025
Accepted 19th May, 2025
Publishedonline30th July,2025

Keywords:

Vegetable Growers, Chemical Pesticides, Pesticides Application, Factors of Pesticides Application, Training, Judicious Application, Proper Regulations, Extension Agencies, Awareness.

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ABSTRACT

India being a signatory to the ICPD in 1994 implemented the Reproductive and Child Health (RCH) Programme in 1997 to achieve the targets set by the conference. In 2005, India again upgraded the programmeto RCH-II that becomes an 'all in one' design to cover reproductive, maternal, and child health, also covering both the demand and supply sides. Loaded with so much significance, it is imperative to study the health of the women (15-49 years) and child (0-5years) for a state like Tripura which is not a very homogeneous territory for easily providing standard health care services round-the-clock to all due to geographic location, hilly and difficult terrain having large number of ethnic groups. The present study attempts to estimate the relative position of the states of North East India in terms of Reproductive and Child Health deprivations using the multidimensional counting approach of Alkire and Foster (2011). The study covers a wide range of variables on reproductive, maternal and child health for the states of North East India and deals with inter-state as well as intra-state (rural-urban) disparity in RCH deprivations using household level information from NFHS-5. The study finds huge variations in RCH status both between and within states where Reproductive Health appears to be a crucial dimension of deprivation.

Citation: Priyanka Bhowmik and Anindita Choudhury. 2025. "The Socio-Legal Facets of Reproductive and Child Health for Tripura: A multidimensional Analysis using NFHS-V.". *International Journal of Current Research, 17, (07), 34090-34103.*

INTRODUCTION

Reproductive and Child Health is the most significant mainstay in evaluating the status of an economy. Access to and use of reproductive health services has innumerable benefits for economic development and the health of a population (Global Leaders Council for Reproductive, 2011). The health status of women has an effect and impact on human well-being, economic growth, and their families also (Bansal, 2017). The reproductive health of women or mothers is directly linked with the adequate health and development of their children (Bloom et. al., 2015) and healthier women are more able to participate efficiently in the labour market. It implies that better health of women improves development through the direct intergenerational transmission of human capital (Bhalotra and Rawlings 2011). Reproductive health is a universal remedy for any slowdown economy (Adinma and Adinma, 2011). Thus, Reproductive and Child Health (RCH) is thought to play a critical role in human capital production, development, and the level of life of the populace in an economy. India is home to about one-sixth of the world's population. Given the high rate of maternal, neonatal, and child mortality in a country like India, reproductive health, child health, and nutrition should be given top priority (Paul et. al, 2011). In 1952, India launched the world's first national program on family planning for reducing the birth rate to stabilize the population at a level consistent with the requirement of the national economy. India being a signatory to the ICPD, in 1994, implemented the Reproductive and Child Health (RCH) Programme in 1997 following the concept and to achieve the target set by the conference. In 2005, India again upgraded the programme to RCH-II. National Health Mission has the authority to implement and evaluate the programme. RCH programme is an 'all in one' design to cover reproductive, maternal, and child health, also covering both the demand and supply sides. From time to time, the improvement of the programme and integration of many other programme into it implies the importance of the RCH programme itself and all its components of it individually. In September 2015, again the importance of Reproductive and Child Health come forward at an historic UN Summit as Sustainable Development Goals to be achieved by 2030. Thus, if creating generations and communities that are healthy is the cornerstone of creating societies that are healthy (Pillai and Maleku, 2015), then reproductive and child health forms the foundation for such societies. Hidden with so much significance, it is authentic to study the health of the

women (15-49 years) and child (0-5years) for a region like the North Eastern Region of India which is not a very homogeneous territory for easily providing standard health care services round-the-clock to all of the region's residents due to its geographic location, difficult terrain, high rainfall, vast hilly region, large forest areas, and a large number of ethnic groups. Furthermore, Devi, Das, & Singh, 2022, stated that over the past few decades, maternal and child health conditions have generally improved in North East India. In contrast to other nearby states on mainland India, most of the NE states still have very low rates of general vaccination, institutional births, prenatal care, fertility, and financial help under JSY, whether in the rural or urban sectors.

Key legal aspects of RCH: The legal facets of reproductive and child health are vital to warrant the protection of human rights, access to healthcare, and the overall well-being of women and children. These laws and policies are enacted to promote safe reproductive practices, protect maternal and child rights, and regulate healthcare services. Legal frameworks thus play a vital role in safeguarding reproductive and child health. Ensuring their effective implementation, raising awareness, and addressing social determinants are key to achieving long-term health outcomes for women and children.

Some key legal aspects of RCH are as follows:

Constitutional Provisions

Right to Life and Personal Liberty (Article 21 of the Indian Constitution): Interpreted to include the right to health and access to safe motherhood and child care. Right to Equality (Article 14): Prohibits discrimination based on gender, supporting equitable access to health services. Right to Education (Article 21A): Important for awareness on reproductive health, especially among adolescents.

Other legal corners Related to Reproductive Health

- **Medical Termination of Pregnancy (MTP) Act (India, amended in 2021):** Legalizes abortion under specific conditions to ensure safe and regulated procedures. Extends the gestation period for abortion under certain circumstances. Protects the confidentiality of women seeking abortion.
- **The Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act, 1994:** Prohibits sex selection before or after conception. Aims to prevent female feticide by regulating diagnostic techniques.
- **Assisted Reproductive Technology (Regulation) Act, 2021:** Regulates clinics and banks offering ART services (e.g., IVF). Protects rights of donors, surrogate mothers, and intended parents. Prevents exploitation and unethical practices.
- **Surrogacy (Regulation) Act, 2021:** Allows only altruistic surrogacy under specific conditions. Bans commercial surrogacy to protect women from exploitation.
- **National Population Policy:** Promotes family planning and reproductive health services. Advocates voluntary and informed choices in family planning methods.

Laws Related to Maternal Health

- **Maternity Benefit Act, 1961 (amended in 2017):** Ensures paid maternity leave (26 weeks for the first two children). Provides for nursing breaks and crèche facilities.
- **Janani Suraksha Yojana (JSY):** Government scheme under the National Health Mission to promote institutional deliveries through financial assistance.

Laws Related to Child Health and Protection

- **The Protection of Children from Sexual Offences (POCSO) Act, 2012:** Provides legal protection to children against sexual abuse and exploitation.
- **Right to Free and Compulsory Education Act, 2009:** Ensures education for children aged 6–14, impacting their health and well-being indirectly.
- **Juvenile Justice (Care and Protection of Children) Act, 2015:** Protects children in need of care and ensures rehabilitation and reintegration.
- **Infant Milk Substitutes, Feeding Bottles and Infant Foods (Regulation of Production, Supply and Distribution) Act, 1992:** Promotes breastfeeding by regulating marketing of infant milk substitutes.

International Legal Frameworks: Convention on the Rights of the Child (CRC). Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). International Conference on Population and Development (ICPD). Sustainable Development Goals (SDGs), especially Goal 3 (Good Health and Well-being) and Goal 5 (Gender Equality)

Challenges in Implementation: Lack of awareness among the public about their rights. Weak enforcement mechanisms. Inadequate healthcare infrastructure in rural/remote areas. Cultural and social barriers to accessing reproductive services.

Rationale for Multidimensional Measurements of RCH Deprivation: Since 1990's, there has been a conceptual changes in measuring development/deprivations from uni-dimensional to more thorough multidimensional paradigm focusing economic prosperity, competence and social inclusion. The efforts by the UNDP (1997, 2005, 2010) represent significant progress in this

area. They introduced 'human poverty indices,' which are calculated as a weighted average of factors such as longevity, knowledge, decent living standards, and social inclusion (for OECD countries). Additionally, 'multidimensional poverty indices' encompass ten indicators across health, education, and living standards, aligning with the concept of the 'human development index.' Wagle (2005) establishes a thorough multidimensional framework that includes economic well-being, capability, and social inclusion as various facets of poverty. He applies this framework to analyze household deprivation in Kathmandu, Nepal. Capability or freedom is more essential than 'functions' to enable individuals living a life they value and have reason to value (Alkire, 2002; Sen, 1992, 1993, 2000). From these perspectives, multidimensional method of measuring significantly expands the discourse of poverty, illuminating the issues of insufficient human well-being (Alkire, 2002; Jayasuriya, 2000). Therefore, both 'capability' and 'functioning' are crucial and constructive, encompassing a set of basic capabilities such as education, health, gender equality, and self-respect. These elements are essential for individuals to function effectively in society and are fundamental aspects of well-being (Alkire, 2002; Sen, 1992,1997; Wagle, 2002). Thus, the attempts of the individuals, social observers or policymakers towards establishment of a poverty threshold focusing attributes of education, health etc. Pave the emergence of multidimensional poverty concept (Bourguignon and Chakravarty, 2003; Fusco, 2003). Thus, multidimensional non-monetary poverty has a clear departure from the concept of income poverty strengthening the concept of poverty measurements. In the light of these conceptual changes, the present study attempts to construct a multidimensional RCH deprivation index comprising of three major components of RCH viz. reproductive health, maternal health and child health. Mapping RCH deprivations with such a composite index expected to help policy planners to go for target based long term policy for development. A multidimensional measurement of RCH deprivation would be useful for understanding the interstate and intrastate heterogeneity among social groups and religions in the light of diverse socioeconomic and health characteristics. It is also to be noted that there is a paucity of studies on the NER in this area; particularly household level studies on RCH by using multidimensional counting approach are not so available on the region. Using data from NFHS II & III, Alkire and Seth (2013) have measured poverty reduction in the Indian states including the states of the North Eastern Region. So, the present study is expected to have significant contribution to the existing literature by covering the counting approach and latest data from NFHS 5.

Based on the literature survey (presented in Chapter II), it clearly appears that despite the interand intra-regional disparities in RCH status, RCH might be instrumental for future development. Therefore, it is necessary to explore the RCH status of a backward region like North East India looking at the region's future development. Again, Tripura, the tiny and remote state in the Northeast Region of India has enormous potential for development, but strengthening its human resources towards proper utilization of resources for development is utmost important. One of the main features of RCH programmes is to eradicate any social inequalities through raising productivity and better income distribution. So, measuring RCH status and inequalities therein across the regions and communities (social groups) of the state has huge policy implications. Therefore, the prime objective of the present Chapter is to measure and compare the status of Reproductive and Child Health (RCH) for the rural households in Tripura across the districts as well as socio-economic classes.

Objectives of the Study

Based on the above mentioned literature, it clearly appears that despite the interand intra-regional disparities in RCH status, RCH might be instrumental for future development. Therefore, it is necessary to explore the RCH status of a backward region like Tripura looking at the region's future development. So, measuring RCH status and inequalities therein across the regions and communities (social groups) of the state has huge policy implications. Therefore, the prime objective of the present study is to measure and compare the status of Reproductive and Child Health (RCH) for the households in Tripura across the districts as well as socio-economic classes.

Data Sources and Methodologies: NFHS unit level data from its 5th round of survey and the Alkire and Foster counting approach of multidimensional deprivation are the sine-qua-none of the present study.

Description of Data: The study uses household level information from the fifth round of National Family Health Survey (NFHS-5) conducted in 2019-21 that has used a multistage, stratified random sampling method to collect samples.For Tripura, the present study uses unit level data of2,074 households (out of 7,209 samplehouseholds in NFHS- 5) with the criteria of having at least one mother in their childbearing age and gave birth of a child during the last 5 years. The particular households having missing value of any chosen indicators of RCH deprivation were dropped from the sample. Besides, the value to a household has been assigned based on the criteria that at least two-third of the individual's information is available for the applicable indicator.

Construction of Multidimensional RCH Deprivation Index (RCHDI): The counting approach of Alkire and Foster (2011) has been applied to estimate the Adjusted Head Count Ratio (AHCR) owing to its advantages of dual cut-off, joint distribution, and decomposability. This study focuses on the general form of social indicators with their ordinal interpretation. A detailed explanation of the method can be found in Alkire and Foster (2007, 2011), Alkire and Santos (2013), and Seth and Alkire (2014). UNDP has been using the Adjusted Head Count Ratio (AHCR) to calculate Multidimensional Poverty Index (MPI) for several countries since 2010.

The Alkire-Foster Method: A two-stage cut-off viz. deprivation cut-off and poverty cut-off are used to identify the poor in accordance with the Alkire-Foster method. Prior to applying these cut-offs, a set of ten indicators (I_j) were chosen based on their general recognition as measures of human well-being. The indicators were then grouped into three broad dimensions (D) with equal weight. When the indicator specific weights are determined on the basis of dimension weights, such that weight for indicator

j, with $j = (1, 2, \ldots, d)$ would be $w_j^d = \frac{1}{D}.\frac{1}{I}$. The first stage cut-off is used to identify the individual household if poor in a particular indicator and pertaining to the deprivation cut-off for each of the ten indicators. A household i to be identified as non-deprived should achieve a minimum level of the j^{th} indicator. Table 1 represents the deprivation cut-off for all the ten indicators, by a vector $Z_j = (z_1, z_2, \ldots, z_d)$. So, the household i is considered to be deprived in j^{th} indicator if its attainment is less than the cut-off Z_j, and replaced by $X_{ij} = \rho_j(X_{ij}, Z_j) = 1$ if$X_{ij} < Z_j$, otherwise$X_{ij} = \rho_j(X_{ij}, Z_j) = 0$, where $X = [X_{ij}]$is the $n \times d$ order achievement matrix. The second stage cut-off is pertaining to identification of the households as to define whether multidimensionally poor. The poverty cut-off (k) generally lies within the range of $1 \leq k \leq d$, implying that poverty is neither defined as being deprived in just one indicator, $k = 1$ (known as union approach) nor as being deprived in all indicators, $k = d$ (referred as intersection approach). Thus, the value of k is normatively determined, with reference to previous studies or based on reasons deemed fit to the concerned society. Alternatively, k can be chosen in alliance with objectives of the state or government's policy guidelines. In the present study, $k\ is\ set\ at$ 0.33 for identification of the multidimensionally poor households. Thus, a household is considered to be multidimensionally poor, if deprived in at least one-third of the total weighted indicators, referred to as the deprivation score. A household's derivation score is represented by the vector $C_{ij} = \sum_{j=1}^{d} w_j^d \rho_j(X_{ij}, Z_j)$ which sums the weighted number of deprivations. The deprivation score of a household is the sum of the weighted number of deprivations, represented by the vector $C_{ij} = \sum_{j=1}^{d} w_j^d \rho_j(X_{ij}, Z_j)$. If $C_{ij} \geq k$ then the household i is classified as multidimensionally poor, with the number of such households expressed as $q(k) = \sum_1^d w_j^d \rho_k(X_{ij}; Z)$; $C_{ij} \geq k$, where q represents the count of multidimensionally poor households. Then the Multidimensional Head Count Ratio (also referred as incidence of poverty) is estimated as $H = \left(\frac{q}{n}\right)$, where n is the total number of households. The intensity of poverty, defined as $A = \left[\sum_i^q C_{ij}^*(k) \Big/ q\right]$, where vector $C_{ij}^*(k)$represents the censored deprivation score of the multidimensionally poor households and the average deprivation score of the poor households. Finally, the formula for estimating the Adjusted Head Count Ratio or MPI is:

$$= \frac{1}{n}\sum_{i=1}^{n}\left[\frac{1}{d}\sum_{j=1}^{d} C_{ij}^*(k)\right];$$

Individual Poverty

$$= \frac{1}{d}\sum_{j=1}^{d}\left[\frac{1}{n}\sum_{j=1}^{n} C_{ij}^*(k)\right];$$

Censored Deprivation

$$= \left[\frac{1}{n} q(k)\right].\left[\frac{1}{q}\sum_i^q C_{ij}^*(k)\right]; \quad \text{(Product of } H \text{ and } A\text{)}$$

Decomposition: Adjusted Headcount Ratio is decomposable by demographic subgroups because it may be expressed as the weighted sum of individual poverty. Therefore, the whole poverty can be represented as follows:

$$M_0 = \sum_{s=1}^{l} \frac{n_s}{n} M_0^s$$

and contribution of the population subgroup, s to the overall poverty M_0 is

$$C_s = \frac{n_s}{n} \times \frac{M_o^S}{M_0} \text{for } s = 1, 2, 3, \ldots, l$$

Where$\left(\frac{n_s}{n}\right)$and $\left(\frac{M_o^S}{M_0}\right)$are the population share and the Adjusted head count ratio of subgroup s, respectively. Similarly, the Adjusted Head Count Ratio is decomposable by indicators, as expressible as the weighted sum of the censored deprivations by indicators. So, the overall poverty to be represented as:

$$M_0 = \sum_{j=1}^{d} \left(\frac{w_j}{d}\right) h_j(k)$$

and the contribution of an indicator j to the overall poverty M_0 is

$$C_j = \frac{w_j}{d} \times \frac{h_j(k)}{M_0} \text{for } j = 1, 2, 3, \ldots, d$$

Where$h_j(k)$ is the censored head count ratio of indicator j.

Dimensions and Indicators: The indicators with varied proportions are essential parts of the MPI and, in accordance with the intended measurement, they capture deprivation in functionings that constitute povertyor determining whether a household is multidimensionally poor or not.FollowingAlkire (2007), Alkire & Foster (2011), the present study has adopted three (3) dimensions (D) of Reproductive and Child Health viz. Reproductive Health, Maternal Health and Child Health based on the required 5 standard criteria.These dimensions are furthercategorized into 11 indicators (d) asdiscussedin Table 1along with their respective cut-offs. This selection of indicators and cutoffs for each indicator is based on the WHO's norms/guidelines and other related studies (Mother-Baby Package by WHO, 1994). The Mother-Baby Package of WHO is also known as the "four pillars" of safe motherhood viz. Family Planning, Antenatal Care, Clean/Safe Delivery, and Essential Obstetric Care. Following international

Multidimensional Poverty Index (MPI), the study also considered'1' as the total deprivation weights divided equally into three dimensions viz. reproductive health, maternal health and child health. Further, reproductive health dimension has three indicators and maternal and child health dimensions have *four* indicators each (*as explained in Table 5.1*). Weights of indicators are assigned equally within each of the respective dimensions of deprivation index. Here, the value '1' is assigned for deprivation in each indicator and '0' otherwise following the deprivation cut-off corresponding to the respective indicator. Therefore, maximum sum of deprivation score will be '1' and minimum score be '0'. Following UNDP, a household (or all members of the household) is/are considered to be multidimensionally deprived in reproductive and child health, if the sum of weighted deprivation score is equal to poverty cut-off or more, i.e., k≥0.33 (Alkire& Santos, 2010 and UNDP, 2015).

Table 1. Dimensions, Indicators, Deprivation Cut-offs, and Weights for the RCHDI

Dimensions (Weight)	*Indicators (Weight)*	*Deprived if…*
Reproductive Health (1/3)	Use of modern contraceptive methods (1/9)	The women of reproductive age who are not using (or whose partner is not using) a modern contraceptive method
	Knowledge of HIV (1/9)	Women who did not heard about HIV
	Decision making in pregnancy (1/9)	Women who do not wanted the last child
Maternal Health (1/3)	Antenatal care coverage - at least four visit (1/12)	The married women aged 15-49 with a live birth in a given time period have not received antenatal care at least
	Births attended by skilled health personnel (1/12)	The births not attended by skilled health personnel.
	Postnatal care for mothers within two days of birth (1/12)	Women who have not received postnatal care within two days of childbirth (regardless of place of delivery)
	Malnutrition (BMI) (1/12)	If BMI below 18.5 and above 25.0 as par WHO standard
Child Health (1/3)	Malnutrition (1/12)	If BMI for age is less than -2 standard deviations of the WHO Child Growth Standards median
	Immunization (1/12)	If any infant or child (0-5 yrs) have not received scheduled vaccine at their respective age during survey
	Colostrum (1/12)	It the infant do not breastfeed within 1 hr of birth
	Prevalence of low birth weight (1/12)	If live born babies who weigh less than 2500 g.

The formula for Reproductive and Child Health Deprivation Index (RCHDI) is given by

$$RCHDI\ (M_0) = Incidence\ (H) \times Intensity(A)$$

Where,*Incidence* represents the proportion of householdsout of the total sample householdswhich are multidimensionally RCH poor and *Intensity* indicates the averagedeprivation among deprived households.

RESULTS AND DISCUSSION

This section describes the status of households of Tripura in terms of their deprivation in reproductive and child health status as well as the state and depth of their deprivation, the major contributors to the deprivation.

RCH Status for Tripura: Even though there is a wealth of literature on reproductive and child health programmes, service use, and socioeconomic factors, relatively few studies have attempted to determine the situation of reproductive and child health deprivation for the states of Tripura. Therefore, the primary goal of this section is to determine the status of household of Tripura with regard to reproductive, maternal and child health as well as the deprivations. Based on the methodologies outlined in Table 1, the Reproductive and Child Health (RCH) status of the household of Tripura in terms of the Reproductive and Child Health Deprivation Index (RCHDI) is presented in Table 2 below:

Now, from the NFHS survey 5th rounds, this is observed that the headcount ratio, also known as the incidence of poverty, H (the proportion of multidimensionally poor to the total population), is 25.90 percent for NFHS-5 for rural Tripura (Table 2). However, at the aggregate level (taking rural-urban together), the incidence of poverty (H) is 19.37 percent for the state of Tripura. For urban Tripura, 20.14 percent of households of Tripura were multidimensionally deprived in reproductive and child health. Thus, there has been a huge rural-urban gap in the proportion of RCH deprived householdsin Tripura as evidenced from the NFHS surveysreported in Table 2 below.Though the Govt. of India has launched the Reproductive and Child Health (RCH) Programmes in 1997–1998to lower the rates of newborn and mother mortalitybutstill the rural areas havelimited access to these programs that leading to increased socioeconomic and regional inequities (Moradhvaj & Samir, 2023).

Table 5.6: RCH Deprivation Status of Tripura by Region

Components	NFHS-5 (2019-21)		
	Rural	*Urban*	*Aggregate*
Incidence (H)	25.9	12.91	19.37
Intensity (A)	40.82	39.05	40.11
M_0	0.106	0.05	0.078

Source: Researcher's estimates based on 5thRound of NFHS Survey Data, 2019-21

Again, the value of M_0 (RCHDI), which is the product of incidence and intensity of deprivation, comes out to be 0.106 and 0.050 for the rural and urban Tripura respectively. At aggregate level the value is 0.078. Further, the intensity of reproductive and child health deprivation (A) appears to be 40.82 per cent for the rural Tripura more than urban area (39.05 per cent).

Decomposition of Reproductive and Child Health Deprivation Index: From policy perspectives, it is important to investigate the relative contributions of the individual indicators and dimensions to the overall RCH deprivation across regions (say, by rural, urban and districts) and social groups of a state. The dimension wise contributions are reported in Table 3. As per the table, the maternal health is the highest contributing dimension to the deprivation followed by child health and then reproductive health. If we see indicator wise, use of contraceptive methods is the highest contributor to M_0 followed by colostrum, antenatal care coverage of at least four visits.Thus, reproductive health's significant contribution to the deprivation highlights gaps in contraceptive access among the women of Tripura. Thus, the aforementioned table and discussiondraw the importance of policy attention in these critical areas.

Table 3. Contribution to M0, Dimension and Indicator wise

Indicators/Dimensions	NFHS-V (2019-21)
Use of modern contraceptive methods	19.8
Knowledge of HIV	3.3
Decision making in pregnancy	3.63
Reproductive Health	**26.73**
Antenatal care coverage - at least four visits	15.74
Births attended by skilled health personnel	7.1
Postnatal care for mothers within two days of birth	11.43
Malnutrition (BMI)	8.79
Maternal Health	**43.06**
Malnutrition	2.75
Immunization	2.05
Colostrum	17.61
Prevalence of low birth weight	7.8
Child Health	**30.21**

Source: Researcher's estimates based on 5thRound of NFHS Survey Data, 2019-21

Table 4. Level of insufficiency across the Districts of Rural Tripura

District		Value	Confidence Interval
Dhalai	**M0**	0.076(.015)	(.045, .107)
	H	0.199(.425)	(.115, .283)
	A	0.382(.004)	(.375, .391)
Gomati	**M0**	0.098(.017)	(.064, .132)
	H	0.243(.042)	(.159, .327)
	A	0.406(.004)	(.399, .415)
Khowai	**M0**	0.099(.013)	(.072, .126)
	H	0.261(.034)	(.192, .329)
	A	0.379(.004)	(.373, .387)
North Tripura	**M0**	0.055(.011)	(.033, .076)
	H	0.137(.028)	(.082, .192)
	A	0.399(.005)	(.389, .408)
Sepahijala	**M0**	0.066(.014)	(.037, .094)
	H	0.162(.034)	(.094, .230)
	A	0.405(.005)	(.397, .417)
South Tripura	**M0**	0.127(.019)	(.089, .165)
	H	0.307(.043)	(.420, .590)
	A	0.417(.005)	(,409, .426)
Unakoti	**M0**	0.215(.019)	(.177, .253)
	H	0.505(.043)	(.420, .590)
	A	0.425(.004)	(.417, .433)
West Tripura	**M0**	0.043(.008)	(.026, .060)
	H	0.111(.219)	(.068, .155)
	A	0.388(.005)	(.379, .398)

Source: Researcher's estimatesbased on5th Round of NFHS Survey Data
Note: Values in parenthesis represents SE

Performance across the Subgroups by Districts: Now, coming to the district level, the present section has gone for comparing the districts of Tripura in terms of RCH deprivation (M_0), incidence (H) and intensity of deprivation (A) for the NFHS data. According to Table 4, the largest proportion of weighted deprivation in terms of RCH status (M_0) is in Unokoti, followed by South Tripura, Khowai, Gomati, Dhalai, Sepahijala, North Tripura and West Tripura. However, the districts in terms of incidence of RCH deprivation are ranked as Unokoti, followed by South Tripura, Khowai, Gomati, Dhalai, Sepahijala, North Tripura and West Tripura in descending order and exactly the same as the rank in M_0. In case of intensity of RCH deprivation, Unokoti happens to be the highest deprive districts, followed by South Tripura, Gomati, Sepahijala, North Tripura, West Tripura, Dhalai and Khowai.

Performance across Social and Religious Groups: Besides area wise analysis of RCH deprivation or RCH performance, this is also vital to study the deprivation across the socio-economic communities, having important policy bearing. The present section is

an attempt to that direction consisting of the classifications into religion, caste and economic criteria (reported in Table 5 using NFHS 5).

Table 5. Status of RCH Deprivation across Population Sub-Groups in Tripura

Area/Sub-groups	2019-21: (NFHS 5)			
	Pop. Share*	M0	H	A
Rural	74.1	0.11	0.26	0.41
Urban	25.9	0.05	0.13	0.39
Religion				
Hindu	80.4	0.08	0.22	0.4
Muslim	12.5	0.14	0.32	0.42
Christian	4.2	0.13	0.33	0.39
Others	2.9	0.14	0.33	0.41
Caste				
SC	26.8	0.08	0.22	0.4
ST	32.7	0.1	0.25	0.4
OBC	22.3	0.71	0.17	0.41
Gen	18.1	0.79	0.19	0.39
Economic Status				
APL	44.7	0.1	0.26	0.41
BPL	55.3	0.09	0.22	0.41

Source: Researcher's estimates based on 5thRound of NFHS Survey Data; Note: *with respect to total population of Tripura

Table 5 reveals that the deprivation in RCH status is greater in the rural areas than that of the urban areas. According to the values of M_0, H, and A, (Yaqoob et al., 2020)the rural areas have higher deprivation in RCHDI, incidence and intensity of RCH deprivation. Regarding religious groups, the RCHDI value (M_0) is same for both Others and Muslim followed by Christians. Again, poverty incidence (H) is same for both Others and Christians followed by Muslim. In comparison to other religious groups during the study period, Hindus were in a superior situation with lesser RCH deprivation. Regarding Caste, looking at the deprivation incidence (H) it can be said that STs are more suffering groups, followed by SC, then General. OBCswere performing better among all the caste groups. Again, in EconomicStatus, APL group is lagged behind BPL in terms of RCH deprivations.

Indicator wise Deprivation across Social and Religious Groups: Based on the comparable indicators, the present section focuses on the changes of overall situation of the RCH deprivedfordifferent social and religious groups in Tripura.

From Table 6, It is observed that Christians are relatively more deprived in 'use of modern contraceptive methods', followed by Muslims. Again, Muslimshasless 'Knowledge of HIV'. The table also indicate that 66.45 per cent of women belongs to Hindus household are deprived in 'antenatal care coverage-at least four visits', followed by Christian. In terms of colostrum, children who belong to Others category are the most deprived, followed by Hindus.

Table 6. Percentage of Deprivation in Various Indicators across Religious Groups

Indicators	2019-21: (NFHS 5)			
	Hindu	Muslim	Christian	Others
Use of modern contraceptive methods	46.04	51.15	57.41	49.35
Knowledge of HIV	13.26	14.81	12.7	10.65
Decision making in pregnancy	5.65	7.73	3.97	10.65
Antenatal care coverage - at least four visits	44.39	50.87	62.36	66.45
Births attended by skilled health personnel	8.08	28.15	12.96	23.23
Postnatal care for mothers within two days of birth	21.82	26.31	27.25	34.19
Malnutrition(BMI of mother)	18.57	24.66	13.76	10
Malnutrition(BMI of Child)	6.27	6.35	6.88	5.48
Immunization	2.62	2.76	1.85	9.03
Colostrum	58.67	56.49	56.88	79.03
Prevalence of low birth weight	19.06	14.9	11.64	10.32

Source: Researcher's estimates based on 5thRound of NFHS Survey Data, 2019-21

Now coming to the social groups (Table 7),it is seen that STs and SCs are comparatively more vulnerable across all the indicators compared to other social groups. Also, discrepancy has been found in the uncensored headcount ratio for all the indicators across the social groups. In case of 'use of modern contraceptive methods', 'Postnatal Care', Antenatal Coverage' and 'Births attended by skilled health personnel', the STs are the most vulnerable group.

For 'Knowledge of HIV' and 'Decision making in pregnancy', General are more vulnerable (General also includes the Muslims) compared to other social groups. For 'Malnutrition of Mother (BMI)', OBCs and SCs are the relative vulnerable groups. For 'Malnutrition of children (BMI), there is no such remarkable difference among the social groups. For 'Immunisation', STs are the vulnerable groups. In case of 'Prevalence of low birth weight', OBCs are the vulnerable group. On the whole, the STs are the most vulnerable social group in RCH deprivation taking into account majority of the indicators and call for serious policy attention.

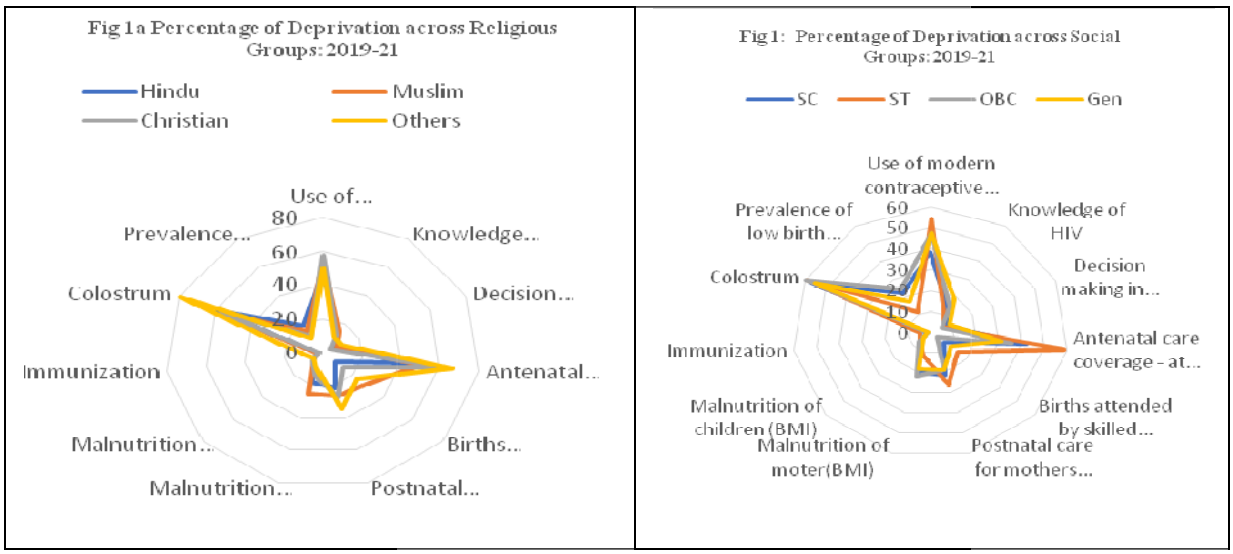
Table 7. Percentage of Deprivation in Various Indicators across Social Groups

Indicators	2019-21: (NFHS 5)			
	SC	ST	OBC	Gen
Use of modern contraceptive methods	38.11	53.92	47.04	46.89
Knowledge of HIV	13.55	10.31	14.56	18.04
Decision making in pregnancy	7.24	5.25	5.14	8.6
Antenatal care coverage - at least four visit	42.22	58.5	35.55	31.08
Births attended by skilled health personnel	7.51	14.72	3.14	10.98
Postnatal care for mothers within two days of birth	21.5	26.38	18.99	19.23
Malnutrition of mother(BMI)	19.87	11.7	21.91	18.81
Malnutrition of children (BMI)	6.42	6.57	6.71	4.51
Immunization	1.8	4.85	1.5	1.45
Colostrum	56.67	59.37	59.6	55.32
Prevalence of low birth weight	21.94	10.86	24.2	17.11

Source: *Researcher's estimatesbased on 5th Round of NFHS Survey Data, 2019-21*

Again, disparity in deprivation across the population subgroups is expected to be clearer from the following radar diagram for both the social and religious subgroups presented below:

Deprivation across Social and Religious Groups



Thus, RCH deprivation varies among social and religious groups for the state of Tripura. From the diagram, it may be inferred that Christian and Others are comparatively more deprived than other religious groups[Fig 1a]. Again, it can be inferred from the social groups that STs are comparatively more impoverished than other social groups[Fig 1b].Therefore, caste and religion have a significant bearing on reproductive and child health outcomes (Yadav & Jena,2020). The state of mother and child health among the socially disadvantaged sections in India was incredibly unequal. They experienced many forms of socioeconomic discrimination, and their access to maternal health care is still very precarious (Das, Hossain, & Roy, 2022; Bango & Ghosh, 2022).

CONCLUSION

The status of RCH of Tripura is surrounded by a wide range of socioeconomic and district-level deprivations whereas, eliminating regional, geographic, and social disparities in health is the main goal of the RCH programme as well as the National Health Policy's "Health for All" goal. In Tripura, the degree of success of this programme and policy is constrained. It is essential to establish region-specific policies that take into consideration the distinctive social, cultural, and economic aspects at play in order to resolve these inequities. The study highlighted that 43 per cent of rural women of Tripura are deprived in Maternal Health dimension, which is one of the dimensions of the study and also a foremost part of RCH programme under NHM suggests policy requirement. According to the NFHS-5 data the percentage of children who are deprived in colostrum is 17.61 per cent which need serious policy implications. Again, as per the study, the indicators which need serious concern are 'use of modern contraceptive method', 'knowledge of HIV', 'decision making in pregnancy', 'Antenatal care-at least 4 visits', 'colostrum' and 'Malnutrition in children'. All these indicators are most important to measure the RCH status of a region and form the core of the RCH programme. Failure of these indicators may be associated with indirect failure of the government's health programme and policies. Therefore, the government must update its policies, and those policies must be indicator-specific. Once more, only the implementation of government policies will not result in success; other factors include how well the policy is accepted by various groups of people. The STs are the most vulnerable social group in RCH deprivation taking into account majority of the indicators of RCH which call

for serious policy attention. Therefore, it is crucial that everyone (social, religious and economic groups) actively participates and assumes all obligations in any initiatives and activities promoting family wellness, both male and female.

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